

Public Utilities



Volume 61 No. 11

May 22, 1958

**DEVELOPING STATESMEN FOR
FREE ENTERPRISE**

By Austin S. Murphy

< >

New York Underground

By Ernest R. Abrams

< >

Reorganization of the Federal Power Commission

By Daniel M. Ogden, Jr.

< >

**The P. U. R. Guide—An Employee
Information Program**

By Francis X. Welch

< >

**Rate Regulation Problems Discussed by
Natural Gas Attorneys**



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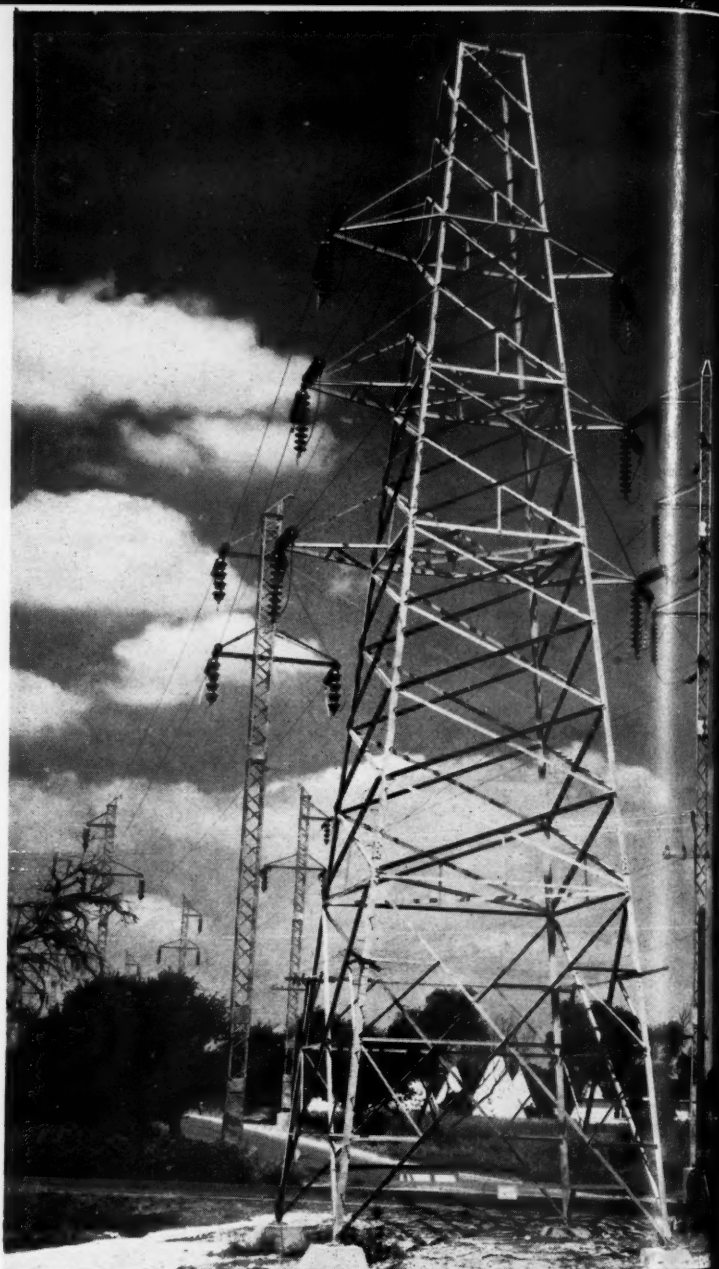
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Public Utilities

FORTNIGHTLY

VOLUME 61

MAY 22, 1958

NUMBER 11



ARTICLES

Developing Statesmen for Free Enterprise *Austin S. Murphy* 721

The author gives some examples of socialistic nonsense disguised as profound economic analysis.

New York Underground *Ernest R. Abrams* 729

An entertaining account of the steady trend of underground utility construction as our cities expand.

Reorganization of the Federal Power Commission *Daniel M. Ogden, Jr.* 737

Some new ideas and reasons with respect to changes which might be made in the FPC setup.

The P.U.R. Guide—An Employee Information Program *Francis X. Welch* 752

In response to a number of inquiries from companies now using or considering using this program, this article has been designed to give practical suggestions based on actual experience to date.

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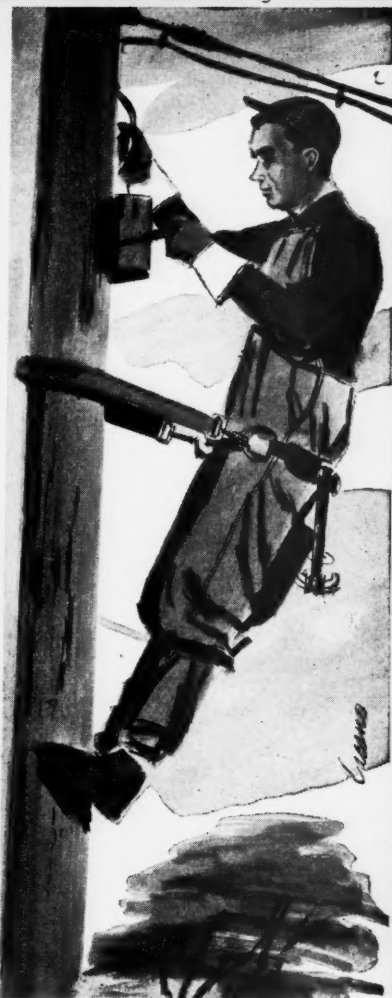
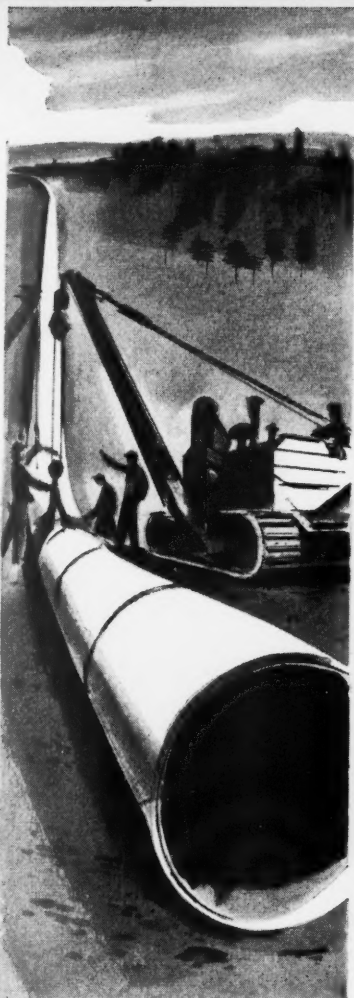
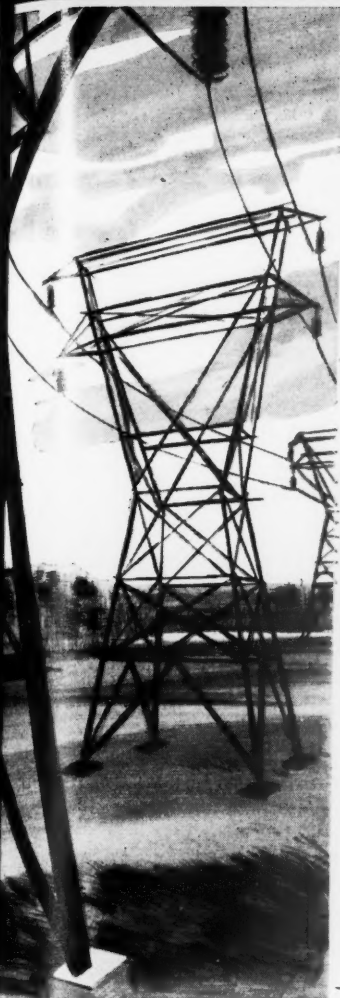
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Pages with the Editors

PRESIDENT Eisenhower has warned us not to make too much out of the April figures showing the first drop in unemployment since October. Ordinary prudence warns us that one swallow does not make a summer. But it still is music to our ears. It is reassuring also to have the former Democratic standard-bearer for the presidency, Adlai Stevenson, throw in his opinion that the recession is on its way out and that we should go slow on hasty measures which might prove more harmful than helpful to the nation's economy.

It is a fact that economic recession has brought out of hiding a fresh outburst of the die-hard Keynesian ideas about mass saving, mass spending, public debt, and so forth. The "trickle upward" theory of promoting mass prosperity has lost a good deal of its academic following since the days of the New Deal. But there are still those who like to appeal for popular support with pious slogans in favor of the poor and against the rich, couched in doctrinaire emotional terms which defy common sense analysis. How does the businessman cope with this sort of thing? How does he test his own thinking?

In the opening article in this issue, DR. AUSTIN S. MURPHY, director of the divi-



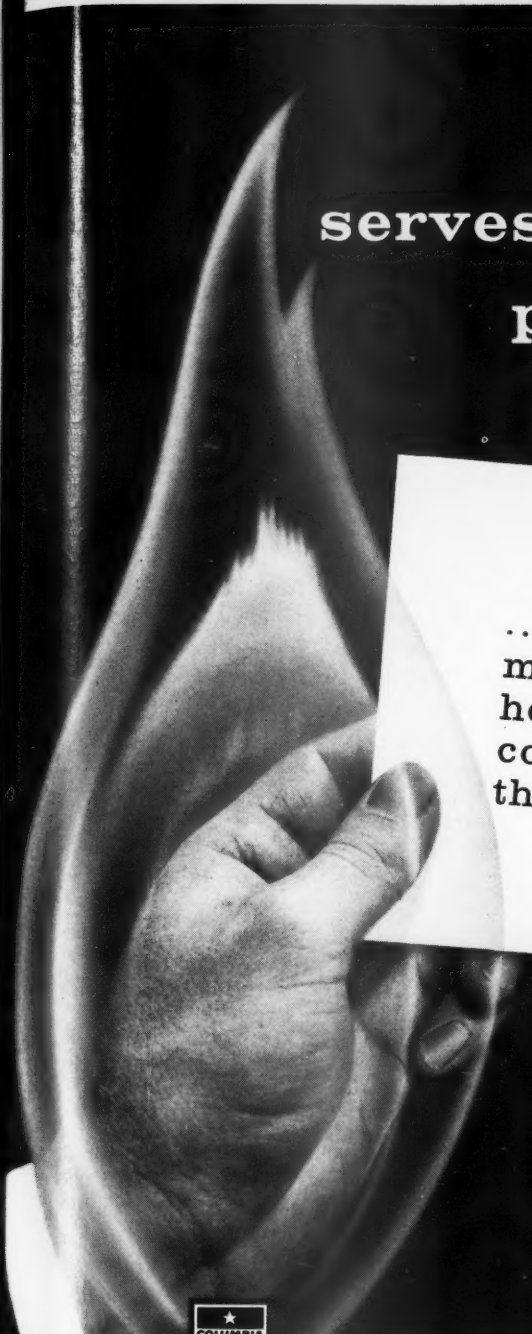
DANIEL M. OGDEN, JR.

sion of business administration of Canisius College, has given much careful thought to this problem and he feels that it must be met in a positive way by an aggressive program for developing free enterprise statesmanship. His hardheaded analysis of what is wrong with much of our teaching and thinking and talking about economic subjects has attracted the attention of business leaders. In his article the author gives us some down-to-earth examples of socialistic nonsense disguised as profound economic analysis.

DR. MURPHY is a native of Richmond Hall, Long Island, and received his PhD in economics at Fordham University. He has taught at that institution and also at Georgetown University, New York University's School of Commerce, and was formerly dean of the school of administration at Seton Hall University in New Jersey before joining the faculty of Canisius College. He is chairman of the economic affairs committee of the Buffalo Chamber of Commerce and an honorary associate of the American Institute of Management. During World War II, he served as Statistical Controls Officer with the 100th Infantry Division of the U. S. Army.

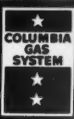


AUSTIN S. MURPHY



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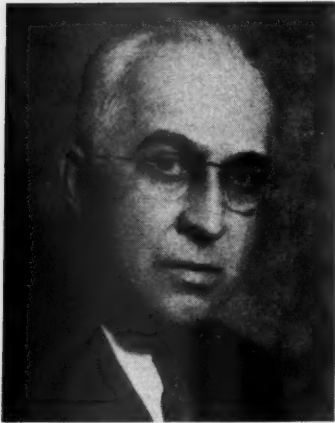


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ERNEST R. ABRAMS

BEGINNING on page 729, in the article entitled "New York Underground," ERNEST R. ABRAMS, author of business articles, has given some attention to the phenomenon of "buried service" in New York city and elsewhere. This article gives us an entertaining account of the steady trend of underground utility construction as our cities expand.

* * * *

THE House Subcommittee on Legislative Oversight has done more than uncover some irregularities and shortcomings in the federal regulatory machinery. Although its own conclusions and investigations are far from complete, the House group has come to grips with some basic problems of commission organization. DR. DANIEL M. OGDEN, JR., associate professor of the department of political science at the State College of Washington, has for some time been engaged in studying possibilities of reorganization of the Federal Power Commission. In his article, DR. OGDEN (beginning on page 737) gives us some new ideas and reasons therefor, with respect to changes which have been made in the FPC setup.

DR. OGDEN's article is a condensation of a major section of a report on the Federal Power Commission, made by him for the Committee on Interstate and Foreign Commerce of the United States Senate in January, 1957. This study of the commission was undertaken throughout the fall of 1956 and was based on interviews with key officials and professional staff of the commission. In other words, he went direct

to the source for his ideas and resulting conclusions about what is needed to make this important regulatory commission function more effectively.

BORN in Clarksburg, West Virginia, in 1922, DR. OGDEN graduated from the State College of Washington (BA cum sum laude, '44) and from the University of Chicago (MA, '47). He received his Doctor of Philosophy in political science from the University of Chicago in 1949 with a dissertation entitled "The Development of Federal Power Policy in the Pacific Northwest." He has been on the faculty of the State College of Washington since 1949 and as an associate professor of political science is now a specialist in public policy formation and American government. He is the author of a number of articles on politics, resource conservation, and developments in the West.

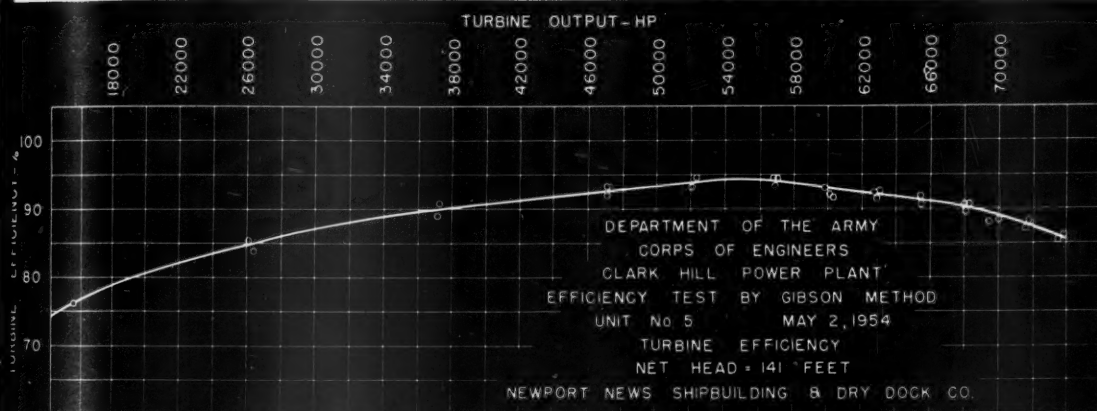
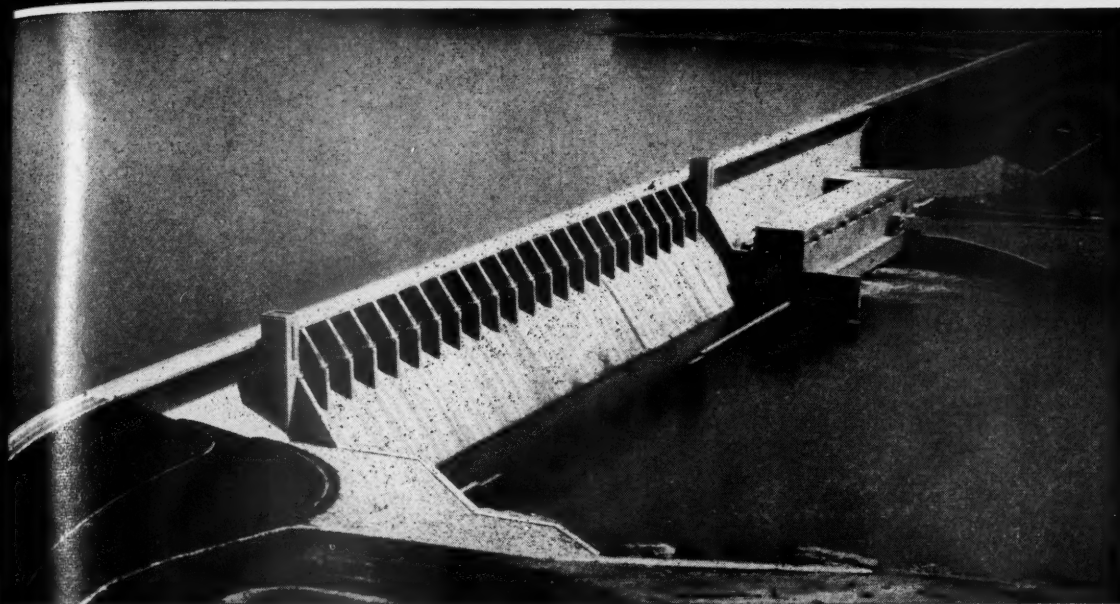
* * * *

THE article beginning on page 752 about The P. U. R. Guide was written by our editor, FRANCIS X. WELCH, who had some part and editorial responsibility in connection with the creation and publication of that new employee information program. This is essentially a now-it-can-be-told type of article because the first group of travelers has completed the full length of the "journey of understanding" upon which the employees of 130 utility companies started out on April 1, 1957, or at intervals during the following year.

WITH the conclusion by the first group of enrollees of their "journey," certificates have been awarded. What has been the reaction of management, and of the employees themselves? MR. WELCH's article is based on an examination of the actual experience with this service so far, and includes statements from those who have actually used this service, telling how they have used it and why. It is a story of what happened and why this program is working out so well.

THE next number of this magazine will be out June 5th.

The Editors



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Coming IN THE NEXT ISSUE

(June 5, 1958, issue)



POWER FOR THE FUTURE

The twenty-sixth annual convention of the Edison Electric Institute meets in Boston June 9th. The theme of this forthcoming gathering has been keyed to the ability and determination of the electric utility industry to accept the responsibility for meeting the entire power load of the nation's economy in the years to come. It is a grave responsibility, but, in the light of past performance, it will be done and done well. J. W. McAfee, president of the Edison Electric Institute and president of Union Electric Company of Missouri, brings to the readers of this magazine a special message developing this theme in terms of the outlook for the power business in America today.

REA SPURS APPLIANCE SALES

REA Administrator David A. Hamil hopes to enlist the co-operation of all segments of the electric industry to step up appliance sales to the farmer. On the local level, dealers and REA borrowers will be urged to team up in sales efforts in local areas. Hamil termed the sales effort "another opportunity for rural electric systems to demonstrate leadership in our country's progress, and to benefit themselves, their members, and their home communities in the bargain." In addition to appliance sales, REA borrowers are being encouraged to accelerate necessary construction and the purchase of needed equipment.

THE ECONOMIC CONSEQUENCES OF REGULATION

The recession has created a special problem for all regulated utility companies. The steady rise in prices notwithstanding declining business volume is only one of the "built-in inflators" which make this recession unique. This question can only be answered, in the opinion of C. P. Guercken, assistant to the vice president of Ebasco Services Incorporated, by recognition of the mutual interests which bind the utilities, the regulatory commissions, and the public. Nothing else will suffice if the nation's interest is to be served because inflation is here to stay, in this writer's opinion.

THE MEXICAN CYCLE

Recently, mention was made in this publication of the domestic electric service rate schedule used in Mexico which embodies the recycling principle. G. C. Delvaile, vice president of California Electric Power Company, has analyzed this schedule, which may seem strange to a rate engineer in the United States, but this author's dealings with Mexican operations have convinced him that such a schedule has a scientific basis and fills a definite need.

SOCIALISM VIA THE SUBWAY

Several weeks ago a special committee appointed by Mayor Wagner of New York recommended that the city sell its subway system power plants to Consolidated Edison Company of New York. The committee found that the city is now paying far more for power from its own plants than would be the case if the plants were sold and power were purchased from the electric utility company. Herbert B. Reynolds, for many years associated with the New York city subways, has written an article which purports to show that if the present costly methods of the city system are not so changed that efficient methods of private industry can be introduced, the people of that community cannot hope to see the end of abnormal increase of public debt, taxes, and subway fares.



Also . . . **Special financial news, digests, and interpretations of court and commission decisions, general news happenings, reviews, Washington gossip, and other features of interest to public utility regulators, companies, executives, financial experts, employees, investors, and others.**

The future belongs



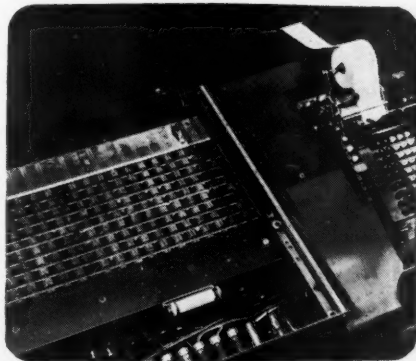
to those
who prepare for it

WHETHER rate structures are the 'chicken or the egg' in future planning, a *first and basic requirement is accurate, continuing monthly analyses of present billing.*

Any workable formula for projection of future operations and their capital requirements, must in some measure be based upon what is happening *now*.

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Chairman, Tax Foundation.

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EDITORIAL STATEMENT
Los Angeles Times.

"It would be silly to say that a recession or any other event of history is merely what a man thinketh, but what he thinks about a recession has a lot more to do with it than one could tell after listening to the politicians."

HOWARD E. WILSON
Dean of education, University of California.

"The hardest task facing education today is to make gifted youngsters feel responsible for using their God-given talents to their fullest extent. We must experiment in every way to find how to motivate our gifted students."

HART BUCK
Statistician, The Bank of Toronto.

"We are accustomed to think of an economy more or less government-controlled as preferable to the free market, and to disagree mainly over the extent of control desirable, on the ground that only government action can prevent some people from earning too much and others too little, and on the further ground that only government action can save us from business readjustments, recession, and depression. It can't."

EDITORIAL STATEMENT
The Wall Street Journal.

"The statistical record shows that all the government's public works projects of the thirties did not cure unemployment; there were still nine and a half million unemployed in 1939. But at least that was a depression, not what is still a period of relative prosperity like the present. So the lawmakers had better be sure of the size of the target before they drag out the government's heaviest antidepression artillery to hit a recession. Otherwise they may miss their mark—and destroy much else."

ROBERT C. TYSON
*Chairman, finance committee,
United States Steel Corporation.*

"Does anyone really believe that the best way to encourage 170 million people to invest their savings in new job-creating ventures is to provide that any additional money they might make in so doing will be taken away from them by taxation at ever-increasing rates up to 91 per cent? Let me remind you that the most ardent advocate of heavy progressive taxation that history has known was Karl Marx. He wanted it because he believed it would help destroy private enterprise by penalizing the more industrious and undermining productive incentives. It is time we gave thoughtful attention to our present confiscatory rates if we are not to stifle the nation's full productive genius and initiative."

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New Dodge Tradesman—a pick-up with side lockers.

Here's what a leading automotive magazine reports about fuel economy— in the 3 low-priced trucks

best way to compare products is to *test* them roughly. That's exactly what a leading automotive magazine's test drivers did with *all three* low-priced pick-up trucks. The results are revealed in the recent issue. One important result was that the Dodge V-8, even with its extra power, gave better mileage than the other two V-8's tested.

Here are some of the statements reported in this magazine about the Dodge *Power Giant* pick-up:

Best in economy! The magazine reports on over-gas mileage, "In spite of the lowest gear, 4.11, the largest displacement engine, the Dodge proved to be the most miserly, averaging 13.5 mpg."

First in payload! The article says, "All test drivers agreed that the Dodge was the best equipped of the three when it came to carrying a good load."

First in power! The magazine states, "... the Dodge had quite a hill climbing advantage over the other trucks."

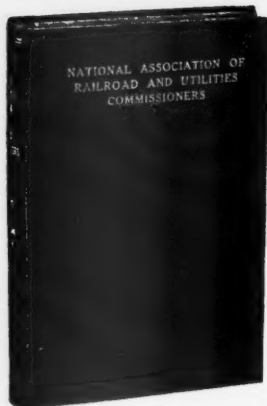
First in styling! No mention of styling was made in the magazine's report, since it was a *performance* test. We'll leave that comparison to you—confident that you'll rate Dodge number one.

Make your own test of the four-way leader of the low-priced three, at your Dodge dealer's. Do it soon, and get his special 40th-Anniversary deal!

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MAY - JUNE

| | | | |
|--|---|---|--|
| Thursday—22 <i>Natural Gas and Petroleum Association of Canada begins annual meeting, Windsor, Ontario, Canada.</i> | Friday—23 <i>Southeastern Gas Association begins gas distribution conference, Charlotte, N. C.</i> | Saturday—24 <i>National Association of Electrical Distributors will hold annual national convention, San Francisco, Cal. June 8-12. Advance notice.</i> | Sunday—25 <i>Air Pollution Control Association begins annual meeting, Philadelphia, Pa.</i> |
| Monday—26 <i>Missouri-Kansas Telephone Associations begin joint convention, Kansas City, Kan.</i> | Tuesday—27 <i>Edison Electric Institute will hold annual convention, Boston, Mass. June 9-11. Advance notice.</i> | Wednesday—28 <i>American Right of Way Association begins annual national seminar, San Francisco, Cal.</i> | Thursday—29 <i>Southeastern Electric Exchange begins industrial power sales conference, Gulfport, Miss.</i> |
| Friday—30 <i>American Society of Mechanical Engineers will hold materials handling conference, Cleveland, Ohio. June 9-12. Advance notice.</i> | Saturday—31 <i>Gas Measurement School will be held, Worcester Polytechnic Institute, Worcester, Mass. June 11-13. Advance notice.</i> | JUNE Sunday—1 <i>American Water Works Association, Canadian Section, begins meeting, Toronto, Ontario, Canada.</i> | Monday—2 <i>National District Heating Association begins annual meeting, French Lick, Ind.</i> |
| Tuesday—3 <i>American Gas Association-Pacific Coast Gas Association begin research and utilization conference, Los Angeles, Cal.</i> | Wednesday—4 <i>California Independent Telephone Association begins annual convention, San Francisco, Cal.</i> | Thursday—5 <i>National Coal Association ends 2-day annual convention, Chicago, Ill.</i> | Friday—6 <i>Public Utilities Association of the Virginias begins public utilities accident prevention conference, Roanoke, Va.</i> |



Courtesy, Consolidated Edison Company of New York

Bridge of Service

By ingenious use of a sectional Bailey Bridge, engineering device of World War II, Consolidated Edison maintains its electrical facilities across a 150-foot gap caused by an excavation for the Cross Bronx expressway.

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Public Utilities

FORTNIGHTLY

VOL. 61, No. 10



MAY 22, 1958

Developing Statesmen for Free Enterprise

An analysis of what is wrong with much of our teaching and thinking. The author gives some down-to-earth examples of socialistic nonsense disguised as profound economic analysis.

By AUSTIN S. MURPHY*

Not long ago a poll of high school students in a typical industrial community revealed that more than half of the almost 1,500 students interrogated believed that "the fairest kind of economic system is one that takes from each according to his ability and gives to each according to his needs."

This statement will be recognized immediately as the most attractive statement of socialist philosophy. Many of the

*Director, division of business administration, Canisius College, Buffalo, New York. For additional personal note, see "Pages with the Editors."

early (and short-lived) communal societies in America were organized on such a philosophy. At first glance, certainly the statement appears to offer an economic policy based on the golden rule. Like many such sweeping expressions of socialist piety, it is difficult to oppose without incurring the stigma of being reactionary or antihumanist.

A recent newspaper editorial, in reviewing the "state of the union," referred to "pockets of 'distressed' economic conditions" and concluded that "The facts re-

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mind us that, however much economic progress America has made in the post-war years, there's still plenty of room for improvement." Who can possibly disagree with such a statement? How the improvement is to be made presents a different perspective, however. The editorial goes on to say:

Sound and imaginative government programs are needed—not as a matter of "charity" for less fortunate groups of citizens. They are needed to prove once again that our American democracy fully recognizes the principle that "an injury to one is an injury to all."

What dastardly economic royalist will argue against the principle of solidarity that "an injury to one is an injury to all"?

ON a recent television program, "The Great Challenge," two well-known economists made curious statements. Professor J. Kenneth Galbraith of Harvard University decried what he calls blind devotion to illusions about the free enterprise system to the effect that "all we need is faith and an occasional jiggle in the interest rate."

Who can disagree? There are few students and few businessmen who will claim omniscience for the Federal Reserve System.

After ridiculing this blind faith in the Federal Reserve System's ability to prevent inflation on the one hand and deflation on the other, Dr. Galbraith went on to conclude, however, that what we need is a very broad new set of controls for our economic system.

Thus, if we agree that the Federal Reserve System cannot by itself provide

complete stability of our economic system (and who can possibly disagree with that?) then we must work for a wider set of controls.

On the same program, Leon Keyserling, formerly chairman of the President's economic advisory council under President Truman, lamented that the United States was lagging behind Russia and predicted that "in ten years they'll be ahead of us in economics." This sweeping statement is subject to as many interpretations as there are definitions of economics. Does he mean production, consumption, free enterprise, monopoly, state Socialism, or what?

How does one disagree with a statement of such monumental lack of clarity?

A short while later, Mr. Keyserling ringingly called for action to meet the Soviet challenge and emphasized that "these things must be done by us as people, by leadership, by government which is a factor in our free enterprise economy."

Without further clarification, how does one agree or disagree with such a program? What exactly does it call for? Hardly can we oppose acting together against the Russian challenge. But the precise action to be taken must be determined and evaluated by free discussion. The references to "leadership" and "government" may not mean the same things to all men.

MY purpose in quoting these instances is to demonstrate the problem which faces the literate, responsible businessman today.

As you read these various quotations, one or more of several reactions occurred. Perhaps you were incredulous on reading

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that high school students in considerable proportion swallow the socialist philosophy without criticism. The editorial you dismiss perhaps as, "Well, they're always in favor of some boondoggle or other." The professional economists leave you exasperated. You know what they said is fuzzy thinking. Everybody knows the Federal Reserve System is not God; but that does not mean that more government controls will bring things any closer to economic godliness. Answers and arguments form in your mind and on your lips.

Regardless of how transparent and inadequate such statements as, "from each according to his ability; to each according to his need," may appear to a well-informed business executive, however, the plain truth of the matter is that such arguments do catch popular fancy. A great many people, and, most regrettably, a large percentage of young people, do not have the background of knowledge and experience nor the broad sweep of mature understanding in which to evaluate well-phrased sophistries of strong emotional appeal. It is natural to be for the underdog, to be for peace, to be for higher living standards, to be against poverty, against recession, against war.

THE great tragedy of our free enterprise system is a terrible inarticulateness. Those who should be championing the cause of a free American economy in which individual initiative is constantly sought and treasured have been struck dumb during the past quarter-century.

Something like political and intellectual blackmail has created a sacred aura about all things self-classified as liberal. The mere statement that some action or some program is intended to "curb monopoly," "relieve distressed economic conditions," "bring about cheaper power," or "drop the shackles of obsolete colonialism" removes the proposal immediately from rational discussion, even though the considered results of the proposal may be quite the reverse of the objectives intended or expressed. Pious slogans are used to make selected intellectual sophistries and political policies at once sacrosanct. In the face of the doctrinaire emotional wave which he must breast today, the typical businessman guards his tongue and restricts himself to carefully worded platitudes about the free enterprise system or leaves the fighting to organizations from which he can always disassociate himself when the controversy grows too bitter.



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FEW businessmen are willing to discuss *vis-à-vis* with opponents of the individual enterprise economy the merits of economic, political, and social ideas that affect that economy. Those who do often prove ineffective, not because their arguments are weak, but because they are unable to cope successfully in public debate with the quasi-intellectual sophistries of their antagonists. This situation frequently develops in governmental hearings on public utility rates and in congressional hearings on proposals for federal development of power and other utilities. The representative of the utility industry is placed on the defensive from the very beginning of the hearing and frequently finds himself in effect on trial.

Frequently have I seen a well-informed and generally articulate executive thoroughly discomfited and defeated in discussion by an opponent whose respect for logical inference and honest argumentation is nonexistent. Half-truths and non sequiturs, such as may be illustrated from the television program described above, can be given the strength of dogma when presented in carefully chosen words and phrases loaded with emotional appeals.

NOT long ago I was chairman of a panel on automation before a group of young businessmen. On the panel were two industrial executives and a representative of the research department of an organization which promotes social planning on a national scale. Certainly both audience and panel would seem to present a forum predominantly pro-business. Yet before ten minutes of the general discussion had gone by, the industrial representatives on the panel were hopelessly on the defensive. The earnestly presented

sophisms of the national planning representative at first raised incredulous smiles from his two fellow panelists who then proceeded systematically to demonstrate the flaws in his logic. The reply to their own very accurate analyses was invariably in terms of a diversionary emotional appeal, and a spate of statistics on a not quite relevant subject. As the evening wore on, the two industry representatives became obviously more exasperated and more uncomfortable. It was obvious that despite illogic, half-relevant statistics, and his broad vagueness of language, the social planning advocate was having an effect. After all, who wants unemployment or is against mother and peace? The union representative adroitly placed himself on the side of the angels and his opponents on the side of Lucifer. One gradually felt that while his logic or statistics might not always be perfect, there was nevertheless right on his side and that therefore maybe black is white after all.

Many saw through the sophistries but neither industry speaker that evening was able to cut through the rush of diversions and misleading conclusions so colorfully presented by the speaker. As moderator and therefore neutral observer, I was impressed sadly by the inability of the two well-meaning and successful businessmen to defend masterfully and convincingly the system in which they play so great a part.

THE recent downturn in economic activity has intensified the demand for all kinds of government action, some good, some bad. The president of the Research Institute of America recently called attention to the "clamor for a num-



Are Businessmen Too Timid or Discreet?

“THE typical executive in the utility business or any other industry tends by nature to avoid the ideological warfare which surrounds him. In the interest of carrying on his own business efficiently and well, he is inclined to dismiss the noisy politicians and the social planners as rabble rousers or impractical dreamers. This action ignores the potential influence of such persons if their words and ideas are not challenged vigorously every step of the way. Industry and the country badly need statesmen, men who cannot only perform their own jobs well, but who are able also to keep abreast of developments in political and economic thought.”

ber of government actions to combat the slump.” Many of the actions suggested are ill thought out and incompletely understood even by their proponents, well-meaning though they may be. In some cases it is evident that the recession provides an opportunity to promote thinly disguised socialist measures.

IN many of the proposals to substitute government action or control for individual initiative, a frightening omission

is present. A considered projection of the results of such proposals on the nature of our economy and our free society is frequently lacking. It is lacking sometimes by design, because the obscure objectives of the advocates of such measures would be revealed by a dispassionate public scrutiny. More often, however, recognition of the real effects of various proposals for government action is not made because of a basic misunderstanding or lack of knowledge about economics itself.

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The belief by many reputed economists that a panacea for all economic ills is found in more complete central government controls is based on wishful thinking to the effect that there are no natural laws in economics and that the laws of human nature can be repealed.

Can anything be done about this problem? One of the most effective means by which business executives can equip themselves to combat successfully false and misleading misinformation about the American economic system is by participating in an economic discussion group program.

The overall purpose of the economic discussion group is to develop articulate spokesmen for the American free enterprise system. Perhaps the best-known such program is that sponsored by the United States Chamber of Commerce. The broad field of economics is the subject matter of the chamber's program. Over a period of seventeen weeks the fundamental concepts underlying the free economy are examined by an interested group of local business leaders under the chairmanship of a college professor or other well-informed individual whose job it is to keep the discussion moving and to resolve questions of fact as they arise.

Although a major purpose of the discussion group is to clarify basic economic concepts and provide a ready knowledge of the workings of the competitive enterprise economy, there are other benefits of such a program of at least equal importance. The participants gradually acquire during the sessions a broader understanding of the complexities of the economic structure and they gain confidence in their own ability to discuss economic problems.

The whole concept of private enterprise is most openly under attack in the public service industry. Utility executives are probably more often called upon to explain and defend the management prerogatives of their companies than are any other industrial executives. The economic discussion group technique can be very useful in developing effective spokesmen for the industry and in sharpening the ability of utility management leaders to anticipate and counter directly the aggressive arguments of the proponents of government ownership in public discussions such as congressional hearings.

To be most effective the discussion group once started should be a continuous evolvement. The experience of the Buffalo, New York, chamber of commerce is a case in point. The first economic discussion group was established early in 1956 with a representative group of businessmen all from different industries, including banking, commerce, and industry. It was quite successful, and a second and larger group was set up a few months later. Several of the participating executives went back to their own companies and set up similar groups, using the same subject matter pattern. As awareness and confidence grew, two further developments took place. A weekly panel discussion on a local television station was set up for the purpose of explaining the American economic system to the general public. "Alumni" of the discussion groups took renewed interest in civic affairs and began to furnish fresh leadership to projects such as Junior Achievement and High School Career Days by which the philosophy of a competitive enterprise economy was conveyed to young people.

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BECOMING specific with relation to the public utility industry, an initial discussion group might best be established to consist of individuals representing various aspects of the business, such as the legal department, financial, load requirements, customer service, and public relations. Where several utility firms service the same area or closely contiguous territories, it may be possible to have representatives of several firms rather than all from one firm. In either case, the first few sessions might best be devoted to the discussion of fundamental economic concepts, such as money supply; inflation and deflation; demand, supply, and prices; wages and profits; the rôle of government; and taxes. In these early sessions, too, the meaning of private enterprise should be examined and compared as to objectives and results with other forms of economic organization, particularly Socialism.

Once having examined the broad picture of the economic system as a whole, subsequent sessions could be devoted to discussing the part played by the utility business in the American economic system.

The unique problems of private enterprise under conditions of close federal and local regulation which characterize the utility industry, can be discussed most fruitfully only when the general prin-

ciples of the American economy have first been clearly understood.

ONE effect of these discussions thus will be to cause the participating representatives of utility management to re-examine and reassess the institutions and ideas which make up the system in which their industry exists. They will be startled to realize that the vital nature of many concepts upon which America's success is dependent has been obscured by stylized platitudes. The intellectual stimulation that results from examining, analyzing, and debating fundamental economic ideas in the discussion group process will revitalize these principles and re-establish them as dynamic foundations of our economic system, to be used vigorously in opposing and defeating socialist arguments and proposals.

A most important objective of the economic discussion group project is to develop the techniques of effective argumentation. While it cannot possibly be a course in public speaking, the discussion group can provide a laboratory for learning techniques. The nature of the executives who make up the discussion group supposes that all would have some experience with public speaking and debate. The group meetings should familiarize the members with the common techniques used by their opponents in attacks on the



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American system of individual enterprise economy.

By utilizing materials drawn from congressional hearings, newspapers, propaganda pamphlets, and similar sources, the moderator can teach the group to recognize sophisms, improperly drawn inferences, and other examples of cloudy logic which are used by those who favor increased central government ownership and control and oppose individual initiative in industrial enterprise. The effectiveness of this phase of the economic discussion group depends in great part on the moderator or chairman since it must be skillfully woven into the discussions as a relevant part of the subject matter.

FINALLY the participants in the economic discussion group will become increasingly aware as the meetings progress of the battle of ideas which is raging all about us in the twentieth century. The broad conflict between the all-powerful state of Socialism on the one hand and the maximum individual freedom of the traditional American system will be defined more and more precisely in terms of specific skirmishes close to each individual's experience. The members of the group will begin to realize the strong emotional appeals of some of the arguments against individual free enterprise offered by the Socialists. They will develop a healthy fear of the socialist rhetoric, recognizing that flimsy logic can be safely hidden in appealing slogans. They will learn to avoid the trap whereby politicians, commentators, and others in public debate attempt to conduct a discussion in words carefully chosen for their emotional charge. Here again, the

moderator must play a major part in providing experiences for the group by which these methods may be dramatically represented and explored.

The typical executive in the utility business or any other industry tends by nature to avoid the ideological warfare which surrounds him. In the interest of carrying on his own business efficiently and well, he is inclined to dismiss the noisy politicians and the social planners as rabble rousers or impractical dreamers. This action ignores the potential influence of such persons if their words and ideas are not challenged vigorously every step of the way. Industry and the country badly need statesmen, men who cannot only perform their own jobs well, but who are able also to keep abreast of developments in political and economic thought. Leaders are needed who can distinguish between attacks on the free enterprise system which are symptomatic of actual abuses which must be resolutely corrected and those attacks which result from general misunderstanding of basic economic concepts.

THE discussion group provides the training ground for the business statesman. Around the discussion table, he learns to get down to basic issues, to understand his antagonist's point of view, and to make himself understood clearly and unequivocally in a running debate. By rethinking for himself the philosophy by which he lives, by testing and improving his argumentative techniques, and by developing a sympathetic alertness to the broad areas of social and economic policy, the business executive becomes a statesman and an able and articulate champion of the American enterprise system.

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New York Underground

New York city has been compared to an iceberg, of which by far the greater proportion lies beneath the surface. This analogy may be difficult to accept when one considers the skyscraping sky line of Manhattan. Yet it is a fact that the essential utility services, including transportation of all kinds, have progressively gone underground in New York city for more than half a century.

By ERNEST R. ABRAMS*

To a greater extent than in any other community in the world, facilities for the rendering of public services have been buried below the level of the streets of New York city. Nowhere in the city, except in a few thinly settled outlying areas, are electric and telephone lines carried on poles. No longer are there any street and elevated railways in New York city. Even mail is rushed from the general post offices to branches by pneumatic tubes for delivery by carriers. Not only has the federal government but the states of New Jersey and New York, New York city, and all of the investor-owned utilities supplying electric, gas,

steam heat, railroad, telegraph, and telephone services have placed their distribution systems in underground tubes or conduits.

In many respects, it is a good thing they did. The New York Telephone Company, the Bell system subsidiary which renders telephone service in both the city and state of New York, estimates that it had more than 335,000 subscribers at the close of February, 1958, in the some 400 square blocks of the city below Chambers street. Back seventy years ago, when New York city was paralyzed by its famous blizzard of 1888, telephone lines were strung eight to a crossarm and fifty crossarms to a 100-foot pole. If lines to serve the present telephone subscribers

*Author of business articles, resident in New York, New York. For additional personal note, see "Pages with the Editors."



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had to be strung on poles today, they would average 8,375 to the block and it is doubtful whether pigeons could find space in which to fly.

IN 1897, when the New York General Post Office was located on the lower tip of City Hall Park, an 8-inch pneumatic tube was placed underground to speed mail to the New York Produce Exchange, about a mile away. Since this tube operated efficiently, others were built to the branch office at Grand Central Station and to the Brooklyn General Post Office. Today, the underground postal tube system runs from the tip of Manhattan to 125th street and Broadway, with most tubes having a radius of eight feet through which mail is moved at from 30 to 40 miles per hour. However, because of construction of the vehicular tunnels under the East river, only the tubes in Manhattan and Brooklyn are now in general use.

The state of New York came into the picture through the establishment, jointly with the state of New Jersey, of the self-supporting Port of New York Authority, which, among other activities, owns and operates the Holland and Lincoln vehicular tunnels under the Hudson river, connecting important New Jersey communities with New York city. The Holland Tunnel is 8,557 feet long and lies 93 feet below the river, while the Lincoln Tunnel is 8,216 feet in length and is placed 97 feet below the Hudson. Jointly, their cost was approximately \$141 million.

NEW YORK city, directly or through its agencies, is responsible for the underground facilities for the distribu-

tion of water, for the sewer system, for the subways, police and fire alarm systems, traffic lights, and the vehicular tunnels under the East river. Prior to 1842, New York city was dependent for its water supply on a few publicly owned wells, many private wells, and a privately owned waterworks, capable of supplying each of its 330,000 citizens with a maximum of two gallons of evil-tasting water per day.

At present, New York city has upwards of 4,500 miles of underground water mains, buried from 4 feet to 10 feet below street level, which are capable of delivering upwards of one billion gallons of water each day for public consumption alone. In addition, the city owns and operates many miles of underground high-pressure mains for use of its Fire Department, separate and apart from mains carrying drinking water. Furthermore, the city has 767 miles of underground conduits, bringing water from upstate reservoirs.

SHORTLY after the Dutch established New Amsterdam at the present site of New York city, they built a canal along what is now Broad street in the financial district for transportation and to bring some of the color of their native Holland to the New World. In 1680, however, the then British Governor converted the canal into Broad street by covering it with a roadway and utilizing the old canal as New York city's first underground sewer. Even so, outhouses and open sewers were in wide use, with resultant contamination of drinking water and city-wide plagues for another 170 years. In fact, five years after the canal was built along what is now Canal street

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in 1814, an open sewer was built alongside. But about 1860, a vast construction program of underground sewers and sewage treatment plants was started, with the present sewerage system measuring more than 570 miles today.

The first public transportation service in New York city started in 1786, when privately owned horse-drawn cabs appeared on the streets, to be followed by horse-drawn stagecoaches in 1800 and by horse-drawn street railways in 1832, after which no changes were made in the transportation system for thirty-eight years. But in August, 1878, construction of elevated railways to be drawn by steam locomotives was started on Sixth and Third avenues, and were soon followed by elevated railways on Second, Seventh, and Eighth avenues.

WHEN the privately owned Interborough Rapid Transit and the Brooklyn-Manhattan Transit systems asked for an increase in the current 5-cent fare to cover mounting wages, operating costs, and taxes, the late Mayor La Guardia violently opposed the suggestion, and after both systems had become bankrupt, he proposed the city-owned Independent

Subway take over the bankrupt lines with the assurance that fares would not be raised above the 5-cent level, based on the statement that labor would not dare strike a government-owned operation. The merger was completed in 1940, but the present fare is 15 cents and one subway workers' union has struck within the past year.

NEW YORK city's municipally owned subway system is now comprised of 68 route miles or 237.4 miles of first track, buried from 14 feet to 75 feet under the streets, over which 6,588 cars carrying 6.5 million passengers operate daily at an average speed of 48 miles an hour. At Herald Square, however, three subway lines operate at three different levels, with the underground tracks of the Pennsylvania and Long Island railroads running beneath them—in all, five different levels of underground transportation.

Actually, none of these subways was the first to be attempted in New York city. In 1870, some venturesome individual with more courage than money started construction of an underground railway tunnel along Broadway, near Warren street. But he went broke, a few



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years later, after completing only 100 feet of tunnel and his tiny tube was utilized by the Brooklyn-Manhattan Transit System, when it built its subway along Broadway.

Through its Triborough Bridge and Tunnel Authority, New York city also built and operates the Brooklyn-Battery and the Queens-Midtown vehicular tunnels. The Brooklyn-Battery Tunnel, connecting the lower tip of Manhattan with Brooklyn, is 9,117 feet long, 100 feet below the East river and cost roughly \$100 million to complete. The Queens-Midtown Tunnel is 6,200 feet long, 85 feet below the East river, and cost some \$53 million.

There are a couple more "subways" in New York city of special type and purpose. When the United Nations buildings were being erected about a decade ago, New York city built a special tunnel for trucks and heavy traffic for seven blocks along First avenue in front of the UN buildings, so their picture would not be spoiled. And some years ago, a special tunnel was built under Twelfth avenue at 39th street, so cattle and sheep could be herded to slaughterhouses, without having to dodge traffic. In addition, wires for operation of fire alarms, police alarms, and traffic lights are carried under many streets in city-owned conduits.

MANUFACTURED gas was the first public utility service to be distributed through underground mains in New York city. In 1816, the city, itself, built a small experimental gas plant on a corner of the present City Hall Park for the distillation of gas from rosin and began distributing it through tin pipes to a small surrounding area. Whalers and candlemakers,

however, forced the city to abandon this activity, since it was cutting down on their sales of whale oil and candles. The first privately owned gas utility to serve New York city was chartered in 1823 and began supplying gas for street lighting in 1828. Because this activity proved profitable, many more gas utilities were formed during the next fifty-six years to serve new sections of the growing city or to compete with one another, but all of these private gas companies were merged as Consolidated Gas Company of New York in 1884.

The first extensive underground construction by Consolidated Gas was started in 1892 by a subsidiary, East River Gas Company, when work began on the Ravenswood Tunnel under the East river between the Ravenswood plant in Long Island City and a point near 71st street in Manhattan. The tunnel with a 36-inch gas main was completed on July 11, 1894, and the first gas was delivered to Manhattan on the following October 15th. A second 36-inch main was added in 1898, along with a 12-inch gas main to Welfare Island, but the latter was replaced by a 20-inch steam main in 1947.

CONSOLIDATED GAS also built the Astoria-Bronx Tunnel in 1910, placed 277 feet below the East river, to carry gas from the Astoria plant to the Bronx. Without a curve in its 4,662 feet, this tunnel now contains two 6-foot gas mains, an airline, an oil pipeline, seven electric cables, a steam line, three telephone cables, and a handcar railroad. A third tunnel was built in 1928 to carry gas across the Bronx river from the Huntspoint plant to the East Bronx and Westchester county. With a diameter of



Under the City Streets

"CONSOLIDATED EDISON now has some 55,100 miles of electric cables installed underground, which carry 93 per cent of its electric load. This applies to approximately 78 per cent of its entire electric distribution system in Manhattan, the Bronx, Brooklyn, Queens, Staten Island, and Westchester county, with practically all Manhattan distribution lines underground. Underground cables are now laid in concrete ducts with from four to twelve ducts in a bank and transformers are also placed in underground bunkers. All underground cables are joined at each crossing to form a network through which power can flow around any point of interference."

13 feet and placed 75 feet below mean high water, this tunnel now carries one 24-inch and two 42-inch gas mains. Consolidated Edison Company of New York, successor name to Consolidated Gas, began converting to natural gas from the Southwest in 1951 and now operates 4,193 miles of underground gas mains, excluding the small amount of delivery pipelines of Transcontinental Gas Pipe Line, Algonquin Gas Transmission, and Tennessee Gas Transmission, its suppliers.

Western Union Telegraph Company built the first underground pneumatic tube for the speeding of messages between its offices in 1876. Although it now has 28 miles of tubes in operation, through which telegrams pass at the rate of between 20 and 40 miles per hour, development of the teleprinter has retarded their use and eliminated the need of further tube construction.

NEW YORK STEAM CORPORATION, a private undertaking, began con-

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struction of its first central heating station in lower Manhattan in 1881 and its first customer—the United Bank building at Wall Street and Broadway—began receiving service on March 3, 1882. By the end of that year, it was serving 62 customers, most of which were the important office buildings in or near the financial district. Today, New York Steam Corporation, now a subsidiary of Consolidated Edison of New York, has 2,363 customers with such huge structures as Stuyvesant Town and the Empire State building counting as one each. With more than 79 miles of underground mains in use today, service is concentrated in the Wall Street financial district and the midtown Grand Central area, with spurs running up Central Park West to 92nd street and along Upper Fifth avenue.

DISTRIBUTION mains are laid 4 feet to 15 feet below street level and are interconnected at all crossings into a network through which steam from any generating plant can be delivered to any customer in the service area. Steam in the mains is maintained at 140 pounds pressure per square inch and moves through the mains at up to 200 miles per hour, with temperatures of individual mains varying as much as 300 degrees. Steam from the Kips Bay generating plant reaches the observation tower atop the Empire State building, nearly a mile away, in twenty-three seconds.

About 65 per cent of steam sold by New York Steam today is used for space heating, with the balance for hot water, cooking, laundering, refrigeration, and scores of industrial purposes. The peak hour of a typical winter day is between

8 and 9 A.M., when as much as 8.7 million pounds of steam may be used. In case you never tried to weigh steam, a pound of steam is the amount of vapor that will condense into one pound of water. At least, that is what Con Edison said.

THE first distribution of electric energy in New York city, as we know the industry today, was through underground channels. Thomas A. Edison had completed an underground distribution study at Menlo Park, New Jersey, on November 7, 1880, and when he placed his Pearl street generating plant in operation in New York city in the afternoon of September 4, 1882, electric energy was carried to 400 street lamps and to 59 customers through two 120-volt wires contained in tin pipes buried in shallow trenches. A 240-volt 3-wire tube system was installed in July, 1887, and the first 2,400-volt 2-wire underground installation was made in 1896, followed by both 7,800-volt and 15,000-volt tubes in 1913, a 24,000-volt system in 1915, and the first 29,000-volt two-conductor oil-filled cable on April 11, 1951.

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Underground cables are now laid in concrete ducts with from four to twelve ducts in a bank and transformers are

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also placed in underground bunkers. All underground cables are joined at each crossing to form a network through which power can flow around any point of interference. The cost of underground construction is estimated at variously from six to twenty times that of overhead cables, depending upon depth, soil, water, and rock conditions.

FOUR steam-electric railroads and one electric railway enter New York city through underground tunnels—the New York Central and the New York, New Haven & Hartford at Grand Central Station; the Pennsylvania and Long Island railroads at Pennsylvania Station; and the Hudson & Manhattan Railway at both 30 Church street and at Sixth avenue and 34th street.

Park avenue, that ritzy residential street with its magnificent buildings and garden plots, is really just the roof over 49 railroad tracks over which New York Central and New Haven trains enter Grand Central Station. At Pennsylvania Station, four tubes from Long Island and two from New Jersey branch out into 21 active tracks for the arrival and departure of trains. In passing under the Hudson and East rivers, these tunnels are 92 feet

and 86 feet, respectively, below the mean high water level of these streams.

Installation of underground facilities for telephonic communications was stimulated by the blizzard of 1888, which induced telephone and telegraph utilities to adopt the suggestion of Thomas A. Edison that their lines be placed underground. In 1889, Consolidated Telegraph & Electric Subway, now a subsidiary of Consolidated Edison of New York, had the sole right to dig up New York city's streets, so telephone cables had to be placed in the underground conduits of Consolidated, in relatively close contact with electric cables. As a result, conversations through underground telephone cables carried only about one-thirtieth the distance of those utilizing overhead wires, due to electric interference.

AT that time, telephone cables in underground conduits contained only 50 circuits and cost around \$155 per circuit mile to build. The problem was eventually solved by the chartering of Empire City Subway Company, a subsidiary of New York Telephone, which was given the sole right to build and lease underground vaults and ducts for all com-



Q "At present, New York city has upwards of 4,500 miles of underground water mains, buried from 4 feet to 10 feet below street level, which are capable of delivering upwards of one billion gallons of water each day for public consumption alone. In addition, the city owns and operates many miles of underground high-pressure mains for use of its Fire Department, separate and apart from mains carrying drinking water. Furthermore, the city has 767 miles of underground conduits, bringing water from upstate reservoirs."

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munications, and, by 1895, most of the telephone lines in all business sections of the city were installed underground.

At the close of December, 1957, New York Telephone was operating 16,539,638 miles of wire in cables in New York city, a small portion of which in outlying sections of the Bronx, Queens, and Staten Island was carried overhead on poles. All cables in Manhattan are in underground conduits and contained 4,410,052.9 miles of wire at the year end, over which 1,746,725 telephones were served. To be able to maintain these underground facilities, there were 6,190 manholes in Manhattan and 2,502 in the Bronx.

Underground installation of utility distribution lines is not, however, a cure for all possible troubles. On a Thursday night last November, fire in the Pennsylvania Railroad's Tunnel No. 1 under the East river burned or fused 17 cables containing 17,000 telephone wires. Since these were trunk cables, communications between parts of Queens and Manhattan were washed out. During the 3-day Friday-to-Sunday week end, 1,700 telephone employees, many of them working around the clock, made 70,000 splices, among other things, and service was restored by Monday morning. But it was a costly job.

IN 1881, three telephone cables with 50 conductors each were laid at Pittsburgh in underground wooden, pitch, or

asphalt covered boxes and eight additional cables were laid the next year as a test of underground construction. By that time, with increasing subscribers and with wires and cables carried on house-top structures or wooden poles, it was becoming increasingly evident that telephone wires and cables had to be buried. The question was, how best to do it?

On April 16, 1882, six telephone cables were laid in a 5-mile trench between the tracks of a railroad entering Boston as a test of underground construction. Although differently insulated wires were contained in each of the cables, the test was disappointing, on the whole. Although short-range conversations were relatively satisfactory, those carried the length of the cables were indistinct. By the fall of 1885, considerable progress had been made in underground conversation, due primarily to improvements in cable manufacture and the entire Bell system had upwards of 1,200 feet of wire in underground cables by the close of that year.

ON the whole, however, present state of development of underground distribution of utility services cannot be credited to any one type of service. It was a composite effort in which cable manufacturers probably deserve as much credit as do the utilities conducting the experiments.

"THE fact is that far too many people believe that we can have more missiles, bigger welfare programs, and an easier life all at the same time. The idea is that money is no object, that we simply need to spend freely in order to get all that we want. We forget that achievement is the product, not of big figures preceded by dollar signs, but of blood and sweat and tears."

—EXCERPT from First National City Bank Monthly Letter, published by The First National City Bank of New York.



Reorganization of the Federal Power Commission

A study of possibilities of reorganization of the Federal Power Commission. The author gives us some new ideas and reasons therefor, with respect to changes which might be made in the FPC setup.

By DANIEL M. OGDEN, JR.*

THE economic development of twelve postwar years and the Phillips decision of the United States Supreme Court in 1954¹ have shifted the principal mission of the Federal Power Commission from hydroelectric licensing and policing of electric utility accounting to regulation of the natural gas industry. Each recent budget request to Congress from the commission has reflected the ever-mushrooming burden of work, especially the very serious growth in the backlog of gas rate cases. Nevertheless, both the Bureau of the Budget and Congress have steadfastly refused to approve substantial added staff and the commission has struggled to shoulder its new burdens while confronting actual reduc-

tions in man power compounded by a wave of resignations.

To stave off inundation by the skyrocketing work load, the commission has turned to administrative reorganization. Taking advantage of the new "strong chairman" plan adopted as a result of the report of the first Hoover Commission, the Federal Power Commission in the past four years has made five major organizational decisions which give promise of improving efficiency and increasing production levels.

THE reorganization, often overlooked in discussions of Federal Power Commission needs and potential, is important both for what it retained as well as what it changed. Equally significant is the way in which the bulk of the reorganization

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was accomplished: through the personal study and efforts of an experienced career public servant brought into the agency as executive director. He was able to introduce a major innovation—the “flat” organization—and to shift a number of responsibilities in the interest of more coherent work assignments, without altering the traditional organization of the staff on the basis of profession.

Although based heavily on the judgment of the new executive director, the reorganization reflects in remarkable fashion the recommendations made by three separate earlier studies of the commission's administrative problems. The first analysis was made by the Bureau of the Budget in 1939-40. Dr. C. Herman Pritchett of the University of Chicago made the second as part of the task force studies for the first Hoover Commission in 1948. The third examination was completed in 1954 by Cresap, McCormick, and Paget, a firm of management consultants, employed by the Bureau of the Budget after the chairman of the commission had requested that a study be made.

EACH of the studies reported three essential facts about the organization and administrative management of the Federal Power Commission:

1. The commission was organized on a professional basis. Employees were grouped on the basis of the skills they possessed, rather than on the basis of regulatory activity. Thus, traditionally, there were: a bureau composed of hydraulic and electrical engineers, which did licensed project work and made river basin, power-marketing, interconnection, and similar engineering studies; a bureau

composed principally of accountants, gas engineers, gas and electric power rate engineers, and public utility specialists, which handled all accounting, gas certificate engineering, rate, financial regulation, and statistical work of the technical staff; and a bureau composed of attorneys, which provided legal service to the commission and all parts of the staff.

2. No one person was responsible for the management of staff activities. The flow of cases through the staff to the commission was presumably insured by the “supervisory commissioner” system in which incoming cases were assigned each commissioner in turn. Each commissioner was supposed to see that cases assigned him did not bog down. Meantime, even minor administrative matters such as routine personnel changes came before the full commission.

3. Supporting administrative services were organized in independent divisions which, though loosely referred to as “The Bureau of Administration,” had no bureau chief. Each administrative division, therefore, like each technical operating bureau, reported directly to the full commission. There were three administrative units: the Division of Publications, the Division of Budget and Finance, and the Division of Personnel and Administrative Services. Moreover, these divisions were assigned a variety of duties. The personnel officer was saddled with control of office space, duplicating, maintaining maps and diagrams for the commission, and with stenographic, telephone, messenger, and chauffeur service. The Office of the Secretary, besides performing official secretariat duties, maintained the library and handled public reference and congressional liaison work.

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The Strong Chairman

REORGANIZATION at the Federal Power Commission proceeded from a key recommendation from the first Hoover Commission's Task Force on Regulatory Commissions:

In order to prevent the absorption of all the commissioners in administrative details at the expense of the substantive work, the chairman should be specifically designated as the person responsible for administration within the commission.²

The upshot was Reorganization Plan No. 9 of 1950, which transferred to the chairman of the commission, from the commission as a whole, "the appointment and supervision of personnel," "the distribution of business among such personnel and among administrative units of the commission," and "the use and expenditure of funds," subject to "general policies of the commission" and to the commission's approval of certain types of action. The chairman was authorized to delegate any of his authority to any "officer, employee, or administrative unit under his jurisdiction."³ Personnel in the offices of the commissioners themselves were not affected by the order. The supervising commissioner system was thus abolished and

the way cleared for further reorganization.

Reorganization Plan No. 9 was implemented at the Federal Power Commission by Administrative Order No. 27, November 2, 1950, which restated and clarified the intent of the plan as understood by the commission. With changes in membership, the commission rescinded the previous interpretation and issued Administrative Order No. 27A, July 3, 1952. Following still further changes in membership by the Eisenhower administration, and the appointment of an executive director, the commission on March 10, 1955, issued a third version, Administrative Order No. 27B. The latter order appears to have been largely inspired by the executive director who desired a more careful delineation of the field of administrative responsibility as distinguished from substantive policy.

IN contrast with the two earlier orders, which had summarized the effects of the plan in six items which largely defined the expanded powers of the chairman of the commission, the third pronouncement was phrased as a directive essentially defining the limits of the chairman's powers and identifying areas of responsibility reserved to the commission as a whole. Thus,



Q "THE economic development of twelve postwar years and the Phillips decision of the United States Supreme Court in 1954 have shifted the principal mission of the Federal Power Commission from hydroelectric licensing and policing of electric utility accounting to regulation of the natural gas industry. Each recent budget request to Congress from the commission has reflected the ever-mushrooming burden of work, especially the very serious growth in the backlog of gas rate cases."

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it provided that "The chairman shall be governed by general policies of the commission and by such regulatory decisions, findings, and determinations as the commission may by law be authorized to make." The order further provided for commission approval of major organizational changes and appointments to all high-ranking staff positions, and for ultimate commission control over budget requests and use of appropriated funds for major programs and purposes.

The Executive Director

ACTUAL handling of these administrative powers by an appointed executive director rather than by the commission itself or even by the chairman alone also had been recommended directly or indirectly in all three of the previous studies of the commission's work. The Bureau of the Budget in its 1940 report had urged creation of an executive director "who would serve as the representative of the commissioners in seeing that the entire nonadjudicatory side of the program was administered effectively."⁴

Pritchett, while endorsing the concept of an executive director in principle, rejected it because he doubted both that the needed definitions of responsibility could be made and that the needed qualities of self-control could be found in a proposed incumbent. Instead he called for "the appointment of a chief of the present Bureau of Administration."⁵

Cresap, McCormick, and Paget proposed creation of a "managing director and secretary," who would handle a residue of duties common to a secretariat, be chief of Dr. Pritchett's "Bureau of Administration," and in addition serve as an executive director. They further suggested

that the "managing director and secretary" be given the principal responsibility for implementing their report.⁶

The commission however, decided against combining in one position the secretarial functions, which relate to the responsibilities of the five-man commission, and the executive and administrative functions, which relate to the responsibilities of the chairman. It elected, therefore, in effect, to follow most closely the original recommendation of the Bureau of the Budget in 1940 and create a separate office of executive director.

Chairman Jerome K. Kuykendall promptly requested the Civil Service Commission to approve the position of executive officer,⁷ later called executive director. The position was certified July 10, 1954,⁸ and filled in October, 1954, by bringing in a ranking management officer of the General Accounting Office, Henry R. Domers, a career employee with nearly twenty years of government service. Chairman Kuykendall delegated to Mr. Domers the authority vested in him by Reorganization Plan No. 9.

DR. PRITCHETT's warning about the need to provide precise guide lines for an executive director appears to have been recognized but never formalized. The executive director's powers are defined in terms of his responsibilities in his job description. In addition, Mr. Domers himself has supplied some guide lines rather informally, by viewing the position as one calling for the exercise of management functions carefully divorced from any attempt or implication that he or his assistants wish in any way to substitute their judgment for the judgment of the technical experts in the substantive issues be-

Congressional Attention Invited

"BROAD public issues such as hydro-electric licensing and renewal policy, treatment of 'deferred taxes,' regulation of independent producers of natural gas, and gas pricing policies are at the heart of the work load of the commission. Contention on these issues has occasioned many of the interventions in proceedings and much of the litigation which has inundated the commission's staff. These can only be solved by diverting a little congressional attention to the establishment of clear-cut public policies on each question."



fore the commission. Hence Mr. Domers defined his position and its powers thusly:

The five-man commission retains those elements of management authority and responsibility which have a critical impact on commission action in substantive matters. The remaining elements of agency management make up the "executive and administrative" functional responsibilities of the chairman and thence of the executive director.

These are:

- a. Providing for and co-ordinating staff assistance in the formulation of commission objectives, policies, and operational criteria.
- b. Analyzing commission functions and objectives, and planning the organizational arrangement, responsibilities,

ties, and relationships of the staff.

c. Providing for and co-ordinating staff preparation of proposed annual programs and translation of approved programs into budget estimates.

d. Securing, maintaining, developing, and utilizing the work force required for the execution of authorized work programs.

e. Providing for and co-ordinating staff assistance in the delegation of authority.

f. Directing and co-ordinating the scheduling and conduct of staff operations.

g. Administering available funds, and assembling, analyzing, and maintaining data on costs of operation.

h. Reviewing and evaluating progress in the disposition of the work load, and

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expediting action as necessary to prevent lag.

i. Directing and co-ordinating the preparation of data concerning commission programs and operations, for the information of the Congress and the public.

j. Insuring the adequacy of internal housekeeping services for the agency.

k. Providing for and assisting in the review and analysis of staff arrangements and practices for the purpose of securing continued improvement in operations.⁹

When viewed in relation to the retentions of power defined by Administrative Order No. 27B, these definitions of duties make clear the essentially managerial and administrative nature of the task of executive director, as contrasted with the technical and substantive duties of the professional staff.

To Mr. Domers, then, belongs the bulk of the responsibility for the reorganization and management changes which have been effectuated since October, 1954. Having before him the Cresap report, but being unfamiliar with either the 1940 report of the Bureau of the Budget or Dr. Pritchett's study, he examined the structure and operations of the commission and secured the adoption of a number of important changes, some of which coincided remarkably with the conclusions of the Bureau of the Budget and of Dr. Pritchett, a few of which used suggestions by the Cresap firm, and a number of which were innovations based on his own experience.

The Office of Administration

CREATION of the Office of Administration involved the most striking re-

vision in the commission's structure, although it was not the most important change Mr. Domers instituted. The new office

Studies, in co-operation with the heads of the bureaus and offices, work programs, internal procedures, and work methods of the commission and makes recommendations thereon to bureau and office chiefs and the executive director for use by the commission and the chairman in adjusting programs, policies, and procedures as may be necessary to most effectively accomplish the responsibilities and functions imposed upon the Federal Power Commission by the Federal Power Act and Natural Gas Act and other applicable legislation; plans, directs, and performs the necessary centralized administrative functions of the commission including personnel administration, budget and fiscal management, passenger traffic functions, procurement, property accountability, space acquisition and control, printing and duplicating, drafting, processing of dockets and mails, records administration, library facilities, and other general administrative services; insures co-ordination of administrative staff programs and services with current and anticipated requirements of the operating bureaus and offices.¹⁰

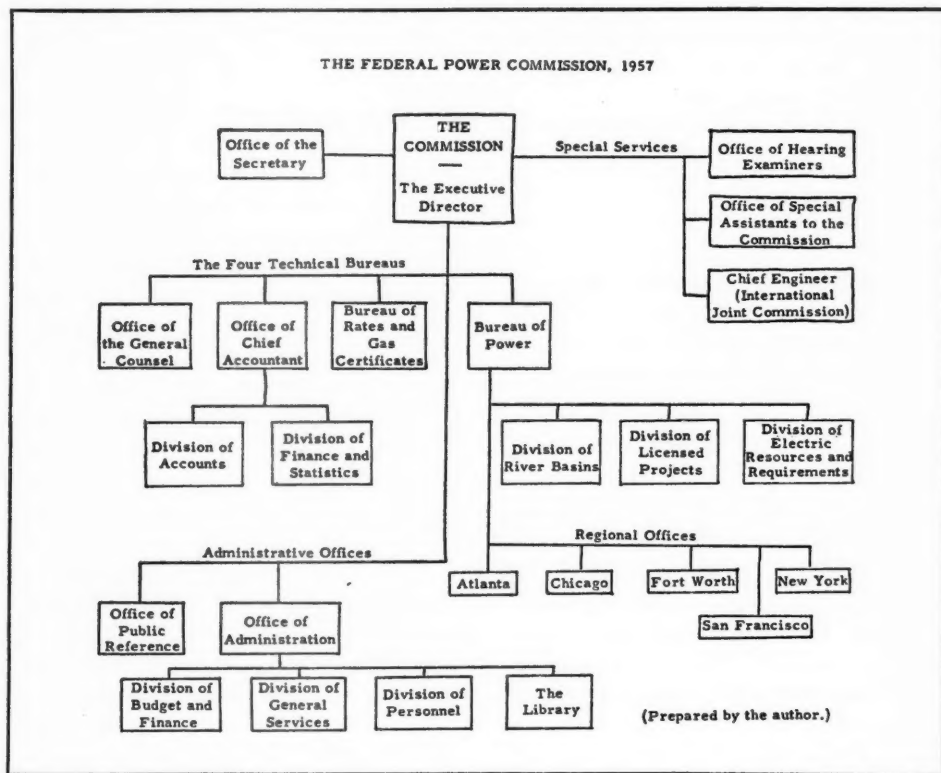
THE Office of Administration now consists of the office of the director of administration and four divisions: Budget and Finance, General Services, Personnel, and Library. This constituted a bringing together and the more rational distribution of a variety of administrative duties which previously had been handled by

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separate units reporting directly to the chairman and the commission, or by units which had been parts of other offices. Thus the independent Division of Budget and Finance was relieved of procurement, property accountability, travel, and miscellaneous service functions and made a division of the new Office of Administration. The independent Division of Personnel and Administrative Services was relieved of all but recognized personnel functions and made a division in the Office of Administration. Mail, file, and records functions were removed from the Office of the Secretary. A new Division of General Services was established in the Office of Administration to be responsible

for the combined service functions removed from the administrative divisions and the Office of the Secretary. Finally, the Library was removed from the Office of the Secretary and established as the fourth major unit in the new Office of Administration.

After these changes had been made, the secretary still retained responsibility not only for the secretarial duties of the commission but also for public reference, publications, public information work, and for liaison with the Congress. At Mr. Domers' suggestion, the commission removed these responsibilities from the Office of the Secretary; established a new Office of Public Reference, responsible for



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public reference, publications, and public information activities; and made the executive director responsible for congressional liaison.

MR. DOMERS' reorganization of the administrative activities followed almost precisely the lines laid down by Dr. Pritchett in his 1948 study, although Dr. Pritchett conceived of the head of the combined administrative activities as being an alternative to, rather than an aid to, an executive director.¹¹ Cresap, McCormick, and Paget had urged a similar combination of routine administrative services for the agency as a whole.¹²

To head the new unit as director of administration, another long-time career civil servant, with no previous experience with the Federal Power Commission, J. Kay Lindsay, was brought into the agency. When he joined the commission staff in January, 1955, Mr. Lindsay was completing nineteen years of government service, most of it in budget and personnel work with the Department of Agriculture and the Army Corps of Engineers. However, from September, 1952, until his transfer to the commission, Mr. Lindsay was employed in the District of Columbia government, where he was primarily concerned with the establishment of a centralized personnel program.

Two New Technical Bureaus

PERHAPS the most important organizational change initiated by Mr. Domers concerned the technical staff, which handles the substantive work of the commission. He divided the Bureau of Accounts, Finance, and Rates into two operating entities: the Office of Chief Accountant

and the Bureau of Rates and Gas Certificates. Effectuated in February, 1955, the division left undisturbed the professional-type organization which had been traditional in the commission and constituted a conscious rejection of the subject matter or "industrial" organization which two of the reorganization studies had proposed.

The old Bureau of Accounts, Finance, and Rates, headed by Charles W. Smith, had borne a disproportionately heavy portion of the staff work load. It had employed nearly half of the commission's personnel and had commanded a proportionate share of the commission's budget. The bureau had received the brunt of the commission's postwar work-load increase and had been especially deluged after the Supreme Court ruling in the Phillips case.

PRICTHETT had commented favorably upon the rôle of the Bureau of Accounts, Finance, and Rates from the standpoint of co-ordination of work because of the professional basis of organization used by the commission.¹³ Pritchett's recommendations, consequently, were largely designed to strengthen the Bureau of Accounts, Finance, and Rates as the key regulatory unit of the commission.

The Bureau of the Budget, on the other hand, in its 1940 study, had emphasized the need for subject matter or "industrial" organization in contrast to professional organization.

The Cresap report, paralleling the 1940 Budget Bureau study, urged creation of a separate Bureau of Natural Gas and the transfer of all the electric utility functions of the Bureau of Accounts, Finance, and Rates to the Bureau of Power.¹⁴ The latter unit, however, had always been basically



Professional Staff Reorganization

"PROBABLY the most imaginative change introduced . . . was 'flat'-type organizational structure. It has been formally introduced into two full bureaus and one major division of the commission. Designed primarily for a small, professionally organized agency to capitalize on a professional staff which faces a fluctuating work load over which it has no control, the 'flat' organization eliminates all functional divisions of a unit and permits the unit chief to utilize his man power to handle the various types of work as they come in."

concerned with hydroelectric resources and licensed projects and had been concerned only to a more limited extent with regulation of the electric utility industry as such.

THE plan adopted in February, 1955, constituted a sort of middle road between the recommendations made as a result of the various organization studies. Some elements of the plan had been suggested to the chairman by Charles W. Smith in March, 1954.¹⁵ Mr. Domers, however, became aware of the Smith suggestion only after he had independently analyzed the problem and come to a conclusion which proved to be similar to that of the bureau's long-time chief. Because he feared professional isolation of key technicians if an "industrial" or functional or-

ganization were used in such a small agency, because he wanted to maintain flexibility in handling work load and shifting technical specialists, and because he felt that better control over work load could be maintained on a professional basis, Mr. Domers set aside this Cresap recommendation.

Although the professional basis of organization thus was essentially retained as Pritchett, in effect, approved, the subject matter specialization which both the Budget Bureau study and the Cresap study had urged was in part accomplished by the division of the Bureau of Accounts, Finance, and Rates. Two of the old bureau's divisions, the Division of Rates and the Division of Gas Certificates, were assigned the new Bureau of Rates and Gas Certificates. The other two divisions

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went to the Office of Chief Accountant: the Division of Accounts and the Division of Finance and Statistics.¹⁶

THE new Bureau of Rates and Gas Certificates, because of differences in the organization of the commission's staff for regulation of the electric power and natural gas industries, and also because of extensive state regulation of electric power utilities, finds that the bulk of its work is with the natural gas industry. Thus, in a sense, it is primarily a bureau of natural gas, handling electric rate matters as a side line. Consequently, it tends to be a gas engineering bureau, although it includes some accountants and geologists. It

Performs all engineering, economic, and accounting work for the commission in connection with rate proceedings under the Federal Power Act and the Natural Gas Act; reviews and analyzes tariffs, rate schedules, and contracts covering the transportation and sale at wholesale in interstate commerce of electric energy and natural gas; reviews and analyzes complaints, protests, and petitions regarding services, practices, and classifications under filed rate schedules; makes economic accounting, engineering, and geological studies relating to applications by natural gas companies for certificates of public convenience and necessity for new facilities and services, the abandonment of service and natural gas facilities, the establishment of service areas, the importation or exportation of natural gas; reviews and analyzes rates and charges filed by various federal marketing agencies for approval by the commission.¹⁷

By contrast, the Office of Chief Accountant retains substantially the old dual rôle of handling both electric and gas matters, which characterized the Bureau of Accounts, Finance, and Rates, and thus is now the accounting bureau of the commission.

Its duties are:

Designs and interprets uniform systems of accounts for public utilities, licensees, and natural gas companies and investigates compliance therewith; investigates and reports on the claimed cost of hydroelectric projects licensed by the commission; advises the commission with respect to proposed mergers and consolidations of public utilities and the disposition of properties by them; develops forms of reporting financial, operating, rate, and other information and compiles therefrom statistical reports and economic studies; analyzes and reports on proposals of public utilities to issue securities and of natural gas companies to finance properties covered by applications for certificates of public convenience and necessity; prepares rate of return studies for introduction into evidence in the formal rate proceedings; reports on applications to hold interlocking directorates under the Federal Power Act; acts as consultant to other members of the staff and to the commission with respect to matters involved in the rate proceedings.¹⁸

The division was not without its price, however. A wave of resignations and premature "retirements" followed which cost the commission its most able and experienced technical staff leaders, Charles W. Smith and Melwood Von Scoyoc, the

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chief and assistant chief of the old bureau, as well as several of their key associates.

The two remaining technical bureaus, the Bureau of Power and the Bureau of Law, remained unchanged in duties, although the latter was renamed "Office of General Counsel."

"Flat" Organization

PROBABLY the most imaginative change introduced by Mr. Domers was "flat"-type organizational structure. It has been formally introduced into two full bureaus and one major division of the commission. Designed primarily for a small, professionally organized agency to capitalize on a professional staff which faces a fluctuating work load over which it has no control, the "flat" organization eliminates all functional divisions of a unit and permits the unit chief to utilize his man power to handle the various types of work as they come in. At the Federal Power Commission such "flat"-type organization has been established for the Office of General Counsel, for the Bureau of Rates and Gas Certificates, and for the Division of Accounts in the Office of Chief Accountant, although the latter unit really had always been flat, having been organized like a firm of public accountants

from the outset. All unit heads using the new formal flat organization are enthusiastically in favor of it.

Principal advantages cited for the new flat system are:

It provides the maximum desirable latitude in assigning professional skills to the specific cases or types of work on which they are most needed. This results in the most effective prosecution of our work in consideration of workload fluctuations and relative priorities.

It permits maximum utilization of available skills by avoiding the "compartmentalization" and overspecialization which frequently accompany the division of staff members into numerous subordinate units.

It facilitates co-operative working relationships between the various professions involved and eliminates the jurisdictional frictions which inevitably accompany the loan or detail of staff members across organizational lines.

With respect to the Bureau of Rates and Gas Certificates the flat organization has an additional advantage in that there will be only one set of records rather than the two or more which formerly were required under a divisional breakdown.¹⁹



Q "ADDITIONAL reorganization efforts to improve efficiency can be expected to make few further dramatic increases in productivity at the commission. Students of regulation must now face the very real need to supply the agency with clear-cut policy directives, adequate power to carry out the decisions made, and sufficient additional staff to discharge the duties assigned. The alternative is to admit the failure of regulation as a middle way between uncontrolled private monopoly and government ownership."

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OTHER advantages cited by Mr. Domers include:

A flat organization avoids the pyramid-type table of organization and permits professional staff to be promoted with greater flexibility to grades commensurate with their responsibilities and experience.

Being less formal, the flat organization tends to create a greater sense of professional service and of teamwork.

Because it permits shifting of professional personnel with shifts in work load, flat organization encourages a broadening of staff backgrounds.

Thus, too, flat organization provides more professional personnel with a better range of promotion opportunities because more broadly experienced people are produced.

ONCE in operation, however, the flat organization in all three units which use it has quickly shown signs of an internal structuring which appears to be solidifying. For example, in the Office of General Counsel there are now four assistant general counsels who have primary responsibility for particular areas of work: electric, gas certificates, gas rates, and litigation. In the Bureau of Rates and Gas Certificates there are three assistant bureau chiefs who are in charge of certificates and all geology, all rate filings and rate design, and all accounting work involving rates respectively.

Moreover, it appears that personnel assigned to one assistant bureau chief or assistant general counsel tend to stay under that official and to specialize rather extensively in the work he handles. All bureau heads pointed out that the shifting of per-

sonnel, so highly rated as a major asset of the flat-type organization, has been largely confined to the junior personnel. Assessment of the effect of such officially unstructured units in grappling with the work load must await more experience. Studies by Ernest W. Spiekerman, the commission's new management specialist, are under way.

Office of Special Assistants

TO complete the reorganization, one wholly new unit was added: the Office of Special Assistants to the Commission, created effective April 23, 1956.²⁰ Expanded by January 1, 1957, to three young attorneys, the office is primarily designed to assist in the preparation of opinions and orders by the commission. Its official functions are:

The Office of Special Assistants to the Commission will furnish such assistance, with respect to cases assigned to the office, as the commission may require in the preparation of opinions, orders, and other legal documents. When instructed by the commission, in given cases, the office will analyze exceptions to decisions, prepare summaries of acts and issues, and perform other related duties as assigned. The preparation of opinions or orders will include assignments from individual commissioners, or a minority of the commission, for assistance in connection with separate concurring or dissenting opinions.²¹

The creation of an Office of Special Assistants seems to have been impelled both by the enactment of the Administrative Procedures Act of 1946 and by the greatly increased work load facing the commis-



FPC Emphasis on Gas Control

“THE new Bureau of Rates and Gas Certificates, because of differences in the organization of the commission’s staff for regulation of the electric power and natural gas industries, and also because of extensive state regulation of electric power utilities, finds that the bulk of its work is with the natural gas industry. Thus, in a sense, it is primarily a bureau of natural gas, handling electric rate matters as a side line. Consequently, it tends to be a gas engineering bureau, although it includes some accountants and geologists.”

sioners in the last two years. Provision for such assistance had been urged upon the commission for at least a decade. Upon the recommendation of the commission’s Bureau of Law,²² Leland Olds, then chairman of the commission, urged formation of such a unit shortly after passage of the Administrative Procedures Act.

The commission authorized its creation effective December 11, 1946,²³ but the recommendation was never implemented.

PRITCHETT reported the idea with approval to the first Hoover Commission in 1948. Cresap, McCormick, and Paget, calling such a unit “Office of Opinion Writers,” concluded, “There appears to be a need for an independent unit, reporting to the commission, whose responsibility it would be to prepare opinions and orders for the commission.” In support of their recommendation the management firm cited the increased work load on the commission, examples of the commission’s

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having to write its own opinion in cases in which it was unable to call on the staff, "the unreasonableness of expecting staff attorneys to write an opinion unfavorable to their recommendations concerning a case after the commission has refused to uphold them," and "the legal and technical staffs of the FPC are both parties to a case and advisers to the commission." The management firm "felt that opinion and order writing should be separate from investigation and prosecution."²⁴

The special assistants draft commission opinions and orders in those cases which, following hearing before a hearing examiner, come before the commissioners themselves for final decision. The Office of the General Counsel still drafts the commission orders in cases that do not go to formal hearing. Hearing examiners draft the intermediate decisions in cases they hear, except when the commission waives such decisions. The special assistants also review and summarize the exceptions to examiners' decisions which come to the commissioners for final decision. In all of their work the special assistants carefully avoid duplicating the work of the technical staff. If they face technical questions in their drafting or analysis work, they consult technicians on the staff.

Summary and Conclusions

FIVE major organizational decisions or changes have been made at the Federal Power Commission since the fall of 1954, following the adoption of the "strong chairman" system which assigned administrative powers to the chairman. An executive director has been established and the chairman's administrative powers delegated to him; a director of adminis-

tration has been appointed and made responsible for a new office which handles almost all of the heretofore uncoordinated internal administrative services; professional-type organizational structure has been retained but a semi-functional assignment of work has been created by the division of the Bureau of Accounts, Finance, and Rates to establish the Bureau of Rates and Gas Certificates and the Office of Chief Accountant; "flat" organizational structure has been established for two of the four technical bureaus and in one of the two divisions of a third technical bureau to enhance flexibility in the assignment of professional staff; and an Office of Special Assistants to the Commissioners has been created to aid in the preparation of opinions and orders, especially where the technical staff has opposed the position of a regulated company.

Many of the changes made coincide with recommendations submitted earlier in major studies of the commission by the Bureau of the Budget, the first Hoover Commission, and the management analysis firm of Cresap, McCormick, and Paget. Yet the most significant ideas have come from within the agency itself, from its own career staff, and from the new executive director who is himself a career public servant. Thus the changes instituted are drawn from long, practical experience and are being implemented by men who devised them. If supported by adequate budgets to assure sufficient technical staff to meet the increasing work load, they give strong promise of helping materially in the battle of the log jam.

YET the reorganization already accomplished, even if aided by additional

REORGANIZATION OF THE FEDERAL POWER COMMISSION

staff and with careful work planning, will not remove those burdens which flow from continuing basic policy conflicts in Congress.

Broad public issues such as hydro-electric licensing and renewal policy, treatment of "deferred taxes," regulation of independent producers of natural gas, and gas-pricing policies are at the heart of the work load of the commission. Contention on these issues has occasioned many of the interventions in proceedings and much of the litigation which has inundated the commission's staff. These can only be solved by diverting a little congressional

attention to the establishment of clear-cut public policies on each question.

Additional reorganization efforts to improve efficiency can be expected to make few further dramatic increases in productivity at the commission. Students of regulation must now face the very real need to supply the agency with clear-cut policy directives, adequate power to carry out the decisions made, and sufficient additional staff to discharge the duties assigned. The alternative is to admit the failure of regulation as a middle way between uncontrolled private monopoly and government ownership.



Footnotes

¹ Phillips Petroleum Co. v. Wisconsin (1954) 347 US 672, 3 PUR3d 129, 98 L ed 1035, 74 S Ct 794.

² The Commission on Organization of the Executive Branch of the Government, *Task Force Report on Regulatory Commissions* (Appendix N) (Government Printing Office, Washington, D. C., 1949), p. 47.

³ U. S. Congress, House, *Reorganization Plan No. 9 of 1950*, House Document 513, 81st Congress, 2d Session (Government Printing Office, Washington, D. C., 1950).

⁴ C. Herman Pritchett, "Committee on Independent Regulatory Commissions, Staff Report on the Federal Power Commission" (mimeographed), September 1, 1948, p. II-35.

⁵ *Ibid.*, p. IV-29.

⁶ Cresap, McCormick, and Paget, "Organization and Administration of the Federal Power Commission" (New York, 1954) (mimeographed), pp. VI-35 to VI-36, and p. VI-40.

⁷ Letter, Jerome K. Kuykendall to Philip Young, March 24, 1954.

⁸ Letter, John W. Macy, Jr., to Jerome K. Kuykendall, July 10, 1954.

⁹ "Management Improvement in the Federal Power Commission," by Henry R. Domers. Paper submitted to the Committee on Interstate and Foreign Commerce, United States Senate, December, 1956.

¹⁰ U. S. Government, "Federal Power Commission, Statement of Organization," *Federal Register*, XX (1955), pp. 870, 871. See especially Federal Power Commission, *Federal Power Commission Organizational and Functional Chart* (Federal Power Commission, Washington, D. C. July 26, 1956).

¹¹ Pritchett, *op. cit.*, pp. IV-29 to IV-30.

¹² Cresap, McCormick, and Paget, *op. cit.*, pp. VI-33 to VI-39.

¹³ Pritchett, *op. cit.*, p. II-32.

¹⁴ Cresap, McCormick, and Paget, *op. cit.*, pp. VI-4 to VI-19.

¹⁵ U. S. Congress, House, *The Organization and Procedures of the Federal Regulatory Commissions and Their Effect on Small Business*, Part II, Federal Power Commission, Hearings before Subcommittee No. 1 of the Select Committee on Small Business, U. S. House of Representatives, 84th Congress, 1st session, July 28, 1955 (Government Printing Office, Washington, D. C., 1956), p. 667.

¹⁶ U. S. Government, "Federal Power Commission, Statement of Organization," *Federal Register*, XX (1955), 870, 871.

¹⁷ Federal Power Commission, *Organizational and Functional Chart*, *op. cit.*

¹⁸ *Ibid.*

¹⁹ "Organization of the Federal Power Commission," by J. Kay Lindsay, working paper prepared for the Committee on Interstate and Foreign Commerce, United States Senate, December, 1956, p. 5.

²⁰ U. S. Government, "Federal Power Commission, Organization and Functions of the Office of Special Assistants," *Federal Register*, XXI (1956), p. 2605.

²¹ Federal Power Commission, "Administrative Order No. 51, Organization and Function of the Office of Special Assistants to the Commission," March 21, 1956.

²² Pritchett, *op. cit.*, p. II-3.

²³ Letter, Leland Olds, chairman of the Federal Power Commission, to James E. Webb, Director of the Bureau of the Budget, October 25, 1946.

²⁴ Cresap, McCormick, and Paget, *op. cit.*, p. V-8. The term "prosecution" seems to have been ill-chosen.



The P.U.R. Guide—An Employee Information Program

On April 1, 1957, a legion of public utility company employees all over the United States embarked upon a "journey of understanding." Such was the description of The P.U.R. Guide, a new concept of employee information devised by Public Utilities Reports, Inc., publishers of well-known publications and services in the utility field. The enrollment for the Guide covered 52 weekly issues, including semiannual questionnaires for testing the assimilation of this material by the enrollees. Recently the first group of enrollees concluded the first year's "journey." Certificates have been awarded. Meanwhile, four other groups have been started at intervals during the past year. Many companies have inquired about the manner in which this program may be conducted, and to provide possible assistance to them and others this article includes statements of experiences of some company managements and reactions of employees themselves about the Guide.

By FRANCIS X. WELCH*

THE stated objective of the P.U.R. employee information program is to provide an effective tool for giving utility employees of a selected group truly factual information about the nontechnical aspects of the utility business. To be "true," of course, such material must be honestly and fairly presented. To be "factual" it has to be accurate and complete within its scope of coverage. To be "in-

formation," in the best sense of that word, it has to be balanced and attractively packaged for ready and willing acceptance by the audience for which it is intended. This quality must include also the virtues of simplicity and clarity so as to be readily understandable by that same audience. Obviously, this all amounts to quite an order, and quite a challenge, for any publisher or author. How did it all get started? Some background description

*Editor, PUBLIC UTILITIES FORTNIGHTLY.

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is necessary at this point, to tell the whole story of this interesting experiment which has now become a demonstrable success.

INDUSTRY in general (and public utilities in particular) have for some time felt a great need for "truly factual information." Such materials are urgently needed to impart to company employees in various ranks of service a better understanding of the importance of the work which they have chosen for their careers. The same might be said, of course, of materials systematically released to keep company customers, company security holders, and the general public promptly and properly informed about company operations. It is the rapidly growing complexity of modern business operations—new ideas, new developments, new laws, new taxes, new techniques—which makes this a never-ending task. No pat formula can ever be the final answer, because the problem never stands still. It keeps growing. It is self-evident, of course, that any message which entirely misses its intended target, merely because of unattractive form or ineffective presentation, is just as futile and meaningless as if it had never been written at all.

PERHAPS the most interesting feature about the genesis of The P.U.R. Guide was the fact that the demand for it originated entirely *outside* of the publication organization. Time and again, for years and years, the publishers received letters of inquiry and even of entreaty expressing such thoughts as: "Where can we get a down-to-earth explanation of regulation, which our supervisory employees would be willing to read?" Or this: "If you can bring together each week such timely but

difficult and vast and varied material, and analyze it in such a crisp and fair fashion for the busy business executive—as you do in your P.U.R. Executive Information Service—then why can't you do the same thing in the form of a 'P.U.R. Employees Information Service'?" Or even this, on a more plaintive note: "Will you *please* tell me where I can get a simple, readable explanation of our utility business and its place in the economic system, something our employees can understand?"

The pressure for such a service, of course, has been mounting steadily during the past decade. Supervisory employees are busy people, with only limited time to spare, aside from regular duties and on-the-job training programs. But, by the same token, with each passing year they need to know more things, to answer more questions, and answer them correctly and intelligently.

Against this background of indicated demand for a program of informing utility company employees about what they need to know, or, more truthfully, what *they* want to know about *their* business, the idea of The P.U.R. Guide was born.

IT is understandable that the P.U.R. organization was equipped to prepare such a program because of its extensive and established publication experience in the utility field, which spans horizontally *all* the regulated industries—gas, electric, telephone, transit, and water supply. It was in a position of unique advantage to give employees of each utility group an objective view of the operations of sister utility companies in the same community. Such a view, of course, is a necessary part of the overall picture which the employee should have if he is to become completely

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informed, and it is essential particularly in the cases of employees of companies supplying both electric and gas service.

Of some importance, perhaps, was the fact that, as a publishing company, the P.U.R. organization could provide utility employees with material prepared by an outside source, not connected with their own company management. This arrangement has the advantage of gaining employee acceptance of the program absolutely on its own merits, and it encourages employees to participate in this program in their own way, to do their own thinking.

But there was the challenge, already referred to, of packaging the materials just right. In tackling this problem it was readily understood that any satisfactory information program would have to be prepared, mixed, and blended with all the care of a medical prescription.

Oddly enough, although designed primarily for the supervisory group and found helpful to newly recruited special type service employees, the Guide has turned out to be surprisingly popular with the executive level. Quite a few company officials have voluntarily taken the program—partly out of curiosity, perhaps—only to find it a quick and lucid refresher course of things they already knew or feel they should have known. And quite a few have mentioned that they learned some

valuable things which even they did not know or realize before. But more of that later.

Next, in the order of planning this program, there was the problem of balance—what to include and what to leave out, how to avoid duplication with existing company programs, and what to stress, and how far to pursue those topics selected. The idea of a “journey of understanding” originated with the concept of a continuous, enlightening sight-seeing tour, so to speak, through the nontechnical area of modern utility business operations. A brief outline or road map of this journey is set out on page 756.

With the conclusion of “the journey” a Final Program Questionnaire, similar in form to the Mid-Program Questionnaire, again tests the performance of the enrollees. These grades are then averaged and form the basis for the awarding of The P.U.R. Guide Certificate to those found eligible. In this way each enrollee is able to gain a better idea of what has been accomplished. In addition, these questionnaires assist the companies in their evaluation of the extent of the benefit company employees receive from the program.

IN the preparation of this program, no one author wrote The P.U.R. Guide. It is the joint product of a variety of professional talents. To obtain the authority



THE program has been found to be of particular advantage to a somewhat separate group of new employees engaged or training for special duties. Although members of this group usually have a college education or its equivalent in whole or in part, they frequently may have a ‘lost’ feeling in being suddenly thrust into the complications of day-to-day utility business operations. For them The P.U.R. Guide has proved very useful.

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of a sound teaching approach from the standpoint of both theory and practice, a well-known professor from a leading university, with many years of experience as an author and teacher of public utility economics, was engaged to organize the program, outline its proposed coverage and treatment, and prepare the material. Professors from other universities were also engaged to consult and contribute.

Next, legal, financial, and other specialists reviewed and tested the accuracy and adequacy of various Guides covering their respective fields. Finally, the P.U.R. staff organization provided the benefit of its experience in amplification, revision, editorial styling, and format of the entire program. The net result is a combination of many skills and contributions.

Home Study and Discussion Groups

THE P.U.R. GUIDE was purposely designed so that it could be used either on a home study basis or on a discussion group basis. In the latter case, a supplemental service, in the form of a "Leader's Manual," is furnished to those designated by their companies as discussion leaders. This consists of a separate four-page pamphlet issued with each Guide. It contains questions, comments, and provocative suggestions for discussion leaders.¹

How are the companies using The P.U.R. Guide program? As might be expected, there is quite a variation of practice. Many companies, such as those operating over broad or scattered service

areas, find that discussion group assemblies are not practical or convenient. And so they favor the home study method. Others prefer the discussion group method and report very interesting results.

THE Columbia Gas System companies decided to use the Guide, first of all, with its top management personnel. David R. Edwards, vice president and director of employee relations, gives the following account of the experience of that organization:

When the Guide first became available, we decided to select top management personnel in our various subsidiaries as enrollees. Primarily, this was done in order to guarantee that top management would be completely familiar with the program and would urge its full use in the departments for which they were responsible. Secondly, we felt that the material in the Guide was excellent even for our most experienced, long-term, management personnel. To the best of our knowledge, our decision was a good one.

Our second group of enrollees are now receiving the Guide. Largely, they are department heads and general middle management personnel. They have been urged to use the Guide to conduct conferences among their employees on those subjects most applicable to their functions. Thus, regular conference sessions on each issue of the Guide are not held. However, during conference sessions, topics are discussed from time to time which were described in previous issues. In this sense, the Guide has served a most useful purpose as reliable source material.

¹ To facilitate easy reference on subsequent occasions when a refresher might be desired, an Index and Glossary of Utility Terms are provided. During the program a few selected reprints of articles from PUBLIC UTILITIES FORTNIGHTLY are included for voluntary, optional reading on relevant subjects.



The "Journey of Understanding"—With Fifty Features

PICTURE a group of earnest employees climbing into a P. U. R. "bus" to embark on this journey. Where would be the logical start? Obviously, at the start of the utility business. How *did* utility businesses get started in the United States? That was the subject covered in Guide 1. Next, how does the utility business fit into the general American economy? That was Guide 2. What is a public utility? What are its characteristics as distinguished from other lines of business? That was Guide 3. Now it will be noted that those three topics relate to the general area of "free enterprise."

But with Guide 4 our bus has passed into a new area—that of overall regulation. Without taking the time or space here to break down the coverage of the individual Guides going through this area, it might be said that there are nine Guides (from No. 4 through No. 12) which deal, respectively, with such regulatory topics as state commissions, federal commissions, fair return on a fair value concept, and valuation. They also cover expenses, accounting, depreciation, and fair return. Then, the journey of understanding enters into the related but broad field of rate making (Guide Nos. 13-17). These five Guides cover such related topics as rate structures, filed tariffs, differential charging, rate forms and comparisons, and the conduct of a rate case.

The "journey" then leaves the field of rates and travels through the field of service (Guides 18-21). Then it turns into the financial district (Guides 22 through 26) where the mysteries of security issues are cleared up. At this point, which is a little more than halfway, the Mid-Program Questionnaire tests, with sixty questions, the knowledge acquired by the enrollees. Answers are graded by an independent rating group not connected with the P. U. R. organization. Enrollees are advised as to the general caliber of their performance.

The second part of the "journey of understanding" then heads into the field of management problems (Guides 27 through 29), then customer relations (Guides 30, 31), labor relations (Guides 32 through 34), and public relations (Guide 35). The problems of public ownership and the utility co-operative are dealt with in six Guides (36 to 41, inclusive). Special problems of natural gas and telephone utilities are also covered (42 and 43, respectively). The concluding part of the "journey" (44 through 50) deals with such other subjects as taxes, holding companies, community relations, current developments, and a final review.

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Also, our present enrollees have been reminded to use the Guide as a tool for indoctrinating newly hired professional-technical employees and those employees recently promoted to supervisory positions or those being considered for such promotion. In this sense the issues are given for home study.

We feel strongly that the P.U.R. Guides are filling a very real need in our organization. For many years we have wished that such material was available for use in training all levels of employees. We are satisfied that it is meeting our needs now and that it will pay us good returns.

THE Connecticut Light & Power Co. is another organization which decided to start at the top in its use of the Guide. J. R. Maher, employment and training manager, says about this:

We based our selection of enrollees primarily on organizational status. Company officers, division managers, district managers, staff department heads, and certain other members of middle and upper management were selected to receive the reports. This was done on the assumption that it was important for the boss to have this information first. If we enroll more people this year, we will include second level and perhaps some first-line supervisors. We have been following a home study rather than a conference approach because we wanted to gain some familiarity with the service before we decided whether or not to key it into a conference program. In general, the reaction to the service has been very favorable. This subject matter and the logical progression which

the reports follow are of substantial aid to our people in arriving at a better understanding of our own company and the industry of which it is a part. Some of our management people have had some difficulty in keeping on schedule; there is, sometimes, a tendency to fall behind a little and this can result in "cram" reading in an effort to catch up or, perhaps, in bypassing a few issues in order to get back on schedule. I presume this is a human feeling which could exist if the reports were being mailed at two-week intervals or longer.

JOHAN R. BROWN, training co-ordinator, Florida Power Corporation, of St. Petersburg, Florida, describes the way in which their enrollees were selected for starting their first group on the P.U.R. "journey of understanding":

In regard to selection, we did it this way. A letter was written to our executive staff (made up of eight vice presidents) describing the program and allocating to each a percentage of the total number we decided to enroll. The number of openings each vice president was requested to fill was determined by the number of employees under his supervision compared to the total number of employees in the company. At least one enrollee was allotted to each vice president.

We used the conference approach because we felt it was most effective. Of course, the employees read the Guides before attending the conferences. Because The P.U.R. Guide material was to be used by utilities all over the country, it had to be fairly general in many respects. The conference method gave us

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an opportunity to tie in the subject matter directly to specific problems of Florida Power and thereby give much more meaning to the material.

Using the conference approach as we did, we found The P.U.R. Guide course could be effectively divided so as to be entirely covered in fifteen meetings. The functional areas of the vice presidents of the company were used as the basis for grouping the lessons. The frequency of the meetings depended on the grouping of the lessons or Guides.

The reaction to the program by both management and the enrollees was very good. We started a new group of thirty-four enrollees on April 1, 1958, and I think this pretty well summarizes our feelings about the course.

Home Study Experiences

C. W. BORINGER, director of personnel of the Public Service Company of Indiana, has this to say about the use of the Guide in this company:

The employees selected for enrollment in the initial program included our division managers, division superintendents, division engineers, division sales supervisors, division industrial en-

gineers, district managers, and a few general headquarters department heads. All of the field personnel selected are engaged in important public contact work and it was our opinion that The P.U.R. Guide would be of material assistance to them, particularly in this phase of their work. Although we recognized that many of the enrollees had a previous knowledge and understanding of the elements of the program, we felt a refresher course was definitely warranted. For the others, we knew of no other program as complete and basic which we could offer them.

The basis for selection of enrollees in the present program was entirely different. Inasmuch as we planned to use the Guide as one medium for the development of employees whom we believe have the potential to progress beyond their present status, our second group was individually selected without regard to job duties or responsibilities.

We have not attempted to utilize the Guide in conference meetings but have preferred to follow the home study program.

Considerable enthusiasm for the program has been evidenced by our enrollees. We believe the extent of their



Q HERE is what The Cincinnati Gas & Electric Company plans by way of flexible timing in the use of the Guide, according to its director of research and training, Frank C. Neal: "Our tentative plans are to mail the reading material weekly and to hold discussion meetings on each general subject every four to eight weeks. Frequency of these meetings will depend on the amount of subject material to be covered. Meetings and material distribution will be discontinued during the summer months and resumed again in the fall."

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participation is much better than the average and the overall results have been gratifying.

IN Southwestern Public Service Company, Amarillo, Texas, W. C. Rhodes, director of personnel, stated, with respect to the basis of selection of enrollees, that it was decided to include during the first year of The P.U.R. Guide program the top echelon personnel in the company. During subsequent years, this company plans to enroll approximately 3 per cent of its employees each year, for the use of other key personnel, until its supervisory group of approximately 200 have had this program. In addition, it is expected to make the Guide program available to new supervisors as they are appointed. It is felt that the Guide will be particularly appropriate for this group, who are young, enthusiastic, and want to learn more about their job.

Mr. Rhodes said that it was decided to enroll their employees in this program on a home study basis, because the material was particularly appropriate for this type of use. The company felt that in this matter, with no deadlines to face in terms of reading schedules, those who wish to obtain benefit from this program will get it anyway, without the use of conferences. With so many required conferences on other matters and for other purposes, it was deemed desirable to participate in the program without the restrictions and limitations imposed by the use of conferences.

Mr. Rhodes thought that while the semiannual questionnaires were helpful and desirable, their company's evaluation of the use of the Guide was related essentially to the comments they received directly from over half of those enrolled, who took occasion voluntarily to express their

appreciation for enrollment in the program.

Concerning comments about The P.U.R. Guide program, Mr. Rhodes stated as follows:

Our company is currently involved in several training programs, and I feel qualified to evaluate the information that you are sending out. I think this type of material is, without a doubt, the very best that could be obtained for key utility employees.

What the Enrollees Say about It

IN the Kentucky Utilities Company, Lexington, Kentucky, W. H. Skinner, vice president, said it was decided to enroll in The P.U.R. Guide program some key employees who have potential, in order to provide additional basic information about the nontechnical aspects of the utility business. These employees, selected from various parts of the company's service area, entered this program on a home study basis. Comments from some of those enrolled in this program were as follows:

A division manager said: "It is the general feeling that this program would be worth while to any employee who shows a definite interest in obtaining more knowledge as to the overall operations and organization of the utility interest, and it has also been suggested that after the course has been completed a group discussion by the individuals participating in the course might be beneficial."

Another division manager said: "The four people receiving The P.U.R. Guide in this division are agreed that the first few issues impressed them as being written at a rather elementary level but on



For Whom Was the Guide Intended?

THE program was designed essentially for the busy supervisory employee, bearing in mind that rank-and-file employees usually already have the benefit of orientation and job-training educational programs. The professional or executive level company officials, of course, have had the advantage of more intensive background training, as well as occasional seminars and refresher courses. The P.U.R. Guide was, in other words, for that large group of sincere and hard-working career employees emerging from the rank and file, but who have not reached the executive level of responsibility.

getting into the matter of rates and fair value they decided it had better be kept at that level."

A division safety director said: "The material contained in this series is very important and I find that much of it so far is information which I have learned during my nearly twenty-nine years in the public utilities business, nevertheless, I am learning much more detail and believe I will be better equipped to carry on my work as a result of this study."

A farm service adviser said: "I have not had the opportunity to present these explanatory methods in group confer-

ences, but I am convinced it would be desirable to use since The P.U.R. Guide involves the operations and functions of public utilities, in which we are all very much interested."

A division engineer said: "I find the treatises very interesting and helpful. The first ten lessons have dealt with basic financing, capitalization, and rate making and are especially interesting. Rate base derivation is set forth concisely."

Combination Conference-Home Study

CENTRAL HUDSON GAS & ELECTRIC CORPORATION decided on a combina-

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tion home study and conference arrangement. The results were quite interesting. Writing of their experience with this program, F. M. Greene, personnel development manager, said:

We organized our first P.U.R. course in 1957 to include all exempt personnel appointed during the previous year. The second program started this April (1958) included again such newly appointed personnel, and, in addition, membership was opened to volunteers from our entire exempt group because of the widespread demand known to exist for the opportunity to take the course.

From the beginning, the course was designed as a *combination* home study and conference program. We felt that it was important to give the participants an opportunity to discuss the reading lessons, and to apply the subject matter to our own company situation and problems.

The course was divided into seven conferences covering the following areas: regulation, rates and service standards, financing, management, commercial practices, personnel administration, and public *versus* private ownership.

The conference discussions started with a short, direct presentation emphasizing the application of the P.U.R. course coverage to our company situation. The direct presentations were followed by active question and discussion periods. We used three individual conference leaders and four panels. In each instance the top company authorities in the appropriate fields were used as leaders. The meetings, lasting from two

and one-half to five hours, were operated on an open-ended basis and were continued until questions ceased.

Upon completion of the course, the participants evaluated the program. Their analysis indicated that the P.U.R. program was well accepted. They said the reading lessons adequately covered the various subjects; that the conferences were a necessary adjunct to the Guides, bringing the lessons into perspective with the company's philosophy and operations. In general they appreciated the opportunity to become better informed about the company and the utility industry.

FROM Portland, Oregon, Wallace E. Gordon, manager of industrial relations, Portland General Electric Company, explains why that company also decided on a combination of home study and periodical conferences in connection with the use of the Guide. In the case of that company, the conferences are bimonthly and various company officers and department heads especially qualified on the subjects being discussed, from time to time come in and lead the respective conferences. Mr. Gordon stated:

We first decided how many Guides we were going to be able to purchase. Then we chose that number of people—at the highest possible level, *i. e.*, just below the officer level, who had the time and indicated they were willing to take the course.

We decided to have the Guides sent to the employees' homes and then to hold bimonthly dinner meetings at which time the Guides that they had received at their homes since the last meeting were discussed. We decided on

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this approach because we felt that lessons or Guides sent to the home with no follow-up would be next to useless. We all get too much reading material at home. Without some sort of a conference or device to jog us into reading the material, we felt that after the first few months it would be set aside (with good intentions, of course) and would never be referred to.

I think the general reaction to the Guides has been good. I believe it has exposed many of our department heads, who are specialists in a given field, to an overall look at the company's operations as seen through the eyes of the general management.

Film Supplemental Program

ROBERT E. NEWBY, staff assistant to the president of Potomac Electric Power Company of Washington, D. C., gives a description of an interesting variation of Guide usage by that company:

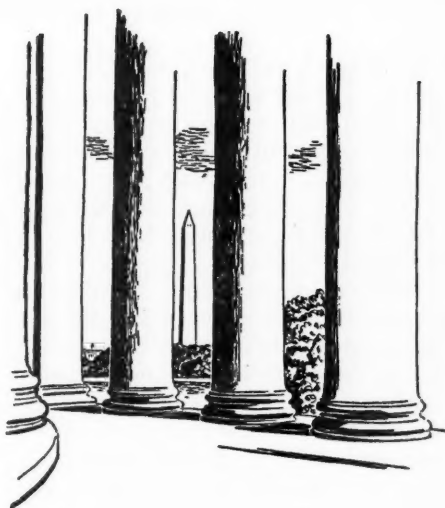
With two conference groups of twenty members each, the plan has been working very satisfactorily. The procedure is designed in such a way as to produce maximum benefit to all participating members. The two groups meet every Monday, one in the morning and the other in the afternoon. Each session lasts approximately one hour. Each Guide is distributed one week in advance to seven members of each group. These members are then prepared to read when called upon by the leader. Each reads one of the seven pages of text at the next succeeding session. He does not know which page he is to read until called upon. At the beginning of

each session, the five questions contained in the preceding Guide are discussed. The seven who have been furnished Guides in advance are excluded from this discussion because they have had access to the correct answers. The questions at the end of each Guide are first read so that they can be kept in mind while the Guide is being read. Every member of the conference groups is called upon to read at least once every four weeks, in rotation.

Officers of the company are called upon from time to time to discuss further those Guides which deal with their respective departments. Also, supplementing the Guide presentations, 16 millimeter sound films have been utilized; i. e., "Your Share in Tomorrow" produced by the New York Stock Exchange, "Twins on the Ohio" produced by the Ohio Valley Electric Utility Companies, and "Freedom and Power" by the General Electric Company.

THE main purpose of this story of The P.U.R. Guide and how it is being used is to help not only those companies now considering its use, but those which are already using it. It may answer some of the inquiries concerning the best way in which to obtain the maximum benefit from this new and flexible information tool for assisting the utility career employee. There is certainly no simple formula or method which could be used by all companies. But from this account of the different ways in which some have actually found The P.U.R. Guide valuable, the reader may obtain beneficial and practical suggestions to inspire ideas of his own for the use of the Guide program.

Washington and the Utilities



New Gas Rate Decision

A NEW and sweeping Federal Power Commission ruling to dispense with rate base evidence in independent natural gas producer rate cases may be in the making as a result of a recent decision of the fifth U. S. circuit court of appeals in the Union Oil Company case. The court ordered the FPC to reopen the controversial Union Oil case for further evidence on the rate base, which the commission has heretofore held must be offered to meet the standards imposed by the so-called Panhandle Eastern Pipe Line decision (*City of Detroit v. Federal Power Commission* (1955) 230 F2d 810, 11 PUR 3d 113). The fifth circuit decision, however, was handed down just after the FPC had ruled, in its Pan American Petroleum Corporation decision, that evidence of fair field price and arm's-length bargaining between producers and transmission companies is sufficient without proof of cost under certain circumstances.

The fifth circuit decision is not necessarily in conflict with the FPC's Pan American ruling which the court refused to regard as an indication of the FPC's intention to abandon its previous require-

ment of cost evidence in gas producer cases. The court noted that the rate increase involved in the Pan American case was slight and problems of cost allocations unusually difficult. On the other hand, the court declined to decide that the "rate base method is essential in every rate case," which is the essence of the Pan American ruling. The upshot would seem to be that the FPC, when it reopens the Union Oil case, could justifiably find that the rate base complications in the case are just as complicated as those in the Pan American case, leaving the door open for a broader ruling on the need for cost evidence in all producer rate cases.

Independent REA Co-ops?

REA Administrator David Hamil has outlined a plan designed to make rural electric co-ops financially independent from the federal government. At the same time, however, Hamil bowed to the obvious in addressing co-op representatives in New Orleans and acknowledged that the administration's proposal to send co-ops into the private money market for new loans has not the slightest chance of

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being accepted by Congress. From the time the administration first recommended that REA interest rates be boosted, its lending powers curtailed, and at least half of its required funds raised from private sources, it has been clear that the proposals would die a natural death in congressional committees.

Despite this, Hamil threw out the idea that eventually co-ops must face the fact that Congress may not be willing indefinitely to finance their operations. He suggested as a more likely solution the establishment of an independent credit agency along the lines of the Federal Land Bank. "... we must look to the future," said Hamil. "If we got organized, we could establish our own credit agency in the next six or seven years. In fifty years we would have repaid all debts to the government and would be financially independent." After that, he said, the private group would administer the REA programs, assuming Congress approved.

HAMIL admitted REA co-ops are not ready to become financially independent now. But he urged the co-ops at least to "take a look" at the idea of an independent credit agency and to start planning now for the day when they may have to stand on their own feet. The reason for the credit agency, he said, would be to allow the rural co-ops, which are locally owned and operated anyway, to function within themselves without "leaning on the government."

Ninety-five per cent of the farms and ranches in rural America are now electrically illuminated, Hamil noted, Louisiana having electrified 96.6 per cent of its rural area with money borrowed in the past twenty-two years REA has been in existence. He agreed with co-op leaders that new consumers increase daily so that the saturation point in rural electric service will not be reached in the foreseeable fu-

ture. "It is with the idea of growing that I make this suggestion for an independent credit agency," Hamil said.



Public Works Bills

EFFORTS of congressional Democrats to push through as many public works measures as possible under the guise of helping current unemployment have been resumed after a slight setback resulting from President Eisenhower's veto of a \$1.7 billion rivers and harbors, flood-control authorization bill. So far Congress has taken no action on the veto. But it is apparent that some kind of rivers and harbors bill will be passed, regardless of whether the veto is sustained.

Senate Minority Leader Knowland (Republican, California), who was plainly unhappy over the veto, seems to have reached an agreement with the administration over an acceptable public works measure. Knowland has introduced a so-called "clean" bill (S 3696) which eliminates certain features found objectionable by the President. Knowland's bill has the blessing of the President, who went one step further and said he would approve 18 additional projects not included in the bill, provided they were modified to conform with certain prescribed standards. The 18 projects, alone, would cost some \$204 million.

While difficulties over rivers and harbors legislation are being ironed out, the Senate may soon get a chance to vote on a Democratic-sponsored measure calling for a stepped-up federal reclamation program. The Senate Interior Committee has approved a resolution which would add \$100 million to the administration's \$230 million program for the next fiscal year. Senate Majority Leader Johnson has promised that the resolution will be brought to a vote as soon as possible.

WASHINGTON AND THE UTILITIES

Oregon's two Democratic Senators, Morse and Neuberger, have meanwhile outlined a program for accelerating construction of John Day dam on the Columbia river as a means of relieving unemployment.

"Antirecession," as the favorite catchword to describe almost any piece of current legislation, has been most recently applied to the TVA revenue bond financing bill. Kentucky's Senator Cooper (Republican) recently told the Tennessee Valley Public Power Association that passage of a self-financing bill would be "the best kind of antirecession measure," which would encourage the investment of wealth-creating funds without any expenditure of federal money.

PASSAGE of the revenue bond bill has been delayed, however, by disagreement between the administration and congressional Democrats over the precise terms of self-financing. Until conflicting views can be reconciled, final action by Congress will continue to be put off, endangering the chances of any bill because of the perennial log jam of legislation at the end of the session.

As matters now stand, the Senate has passed a self-financing bill (S 1869), sponsored by Senator Kerr (Democrat, Oklahoma), which was considerably amended on the floor to provide more executive and congressional control than is contained in the Davis-Jones Bill (HR 4266). The latter bill has been reported to the House but has been bottled up in the Rules Committee. Representatives from the TVA area met April 30th to consider ways and means of bringing the bill to a vote in the House. There was indication, however, that its supporters are prepared to recede from the bill's liberal terms in order to win sufficient support for passage of some kind of self-financing measure at this session.

Atomic Plant Construction

A COMPROMISE painstakingly worked out between the Joint Committee on Atomic Energy and the AEC with regard to government participation in the domestic atomic energy program appears to be threatened by the adverse attitude of the Budget Bureau. After much pulling and hauling, the committee and AEC Chairman Strauss had managed to agree on a \$300 million construction program, including federal construction of three large-scale atomic reactors. The administration has long been opposed to this kind of atomic power development, but Strauss, threatened with defeat in Congress, reluctantly agreed to go along. In an effort to avoid another fight with the Joint Committee, Strauss went over the head of the Budget Bureau to urge President Eisenhower to agree to the accelerated atomic power development program.

The refusal of the Budget Bureau to go along with the compromise, unless reversed by the President, will almost certainly mean a renewal of the perennial fight over government construction of nuclear plants. Committee Democrats are not likely to back down any further than they have and will certainly bend every effort to override the President and push through their own program.

A major item in the program agreed to by Strauss is a \$125 million advanced type of plutonium-producing reactor to be constructed by the government. Rejection of this project by the administration will lead committee Democrats to press for construction of a much more costly reactor capable of producing both plutonium and electricity. The informal program also calls for government construction of a natural uranium-fueled, heavy water-moderated atomic power plant at a cost of \$60 million, and a gas-cooled reactor using slightly enriched uranium as fuel at a cost

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of \$50 million. Acceptance of these two projects by the administration would signal an abandonment of its long-standing position that the government should not construct large-scale atomic power plants unless private industry proved unwilling to build them.

Natural Gas Antitrust Suit

THE indictment by a federal grand jury of three major natural gas companies for allegedly monopolizing gas distribution in the upper Midwest has brought some sharp comments from spokesmen representing the companies involved. The indictment, sought by Justice Department antitrust officials, charges that the three companies—American Natural Gas Company, Northern Natural Gas Company, and Peoples Gas Light & Coke Company—conspired to prevent Midwestern Gas Transmission Company from importing natural gas from Canada with the intent to monopolize the transmission and sale of natural gas in Wisconsin, Minnesota, and parts of Illinois and Michigan.

Ralph T. McElvenny, president of American Natural Gas Company, accused the Justice Department of "attempting to extend the antitrust laws to matters within the jurisdiction of the Federal Power Commission." The three indicted companies have opposed Midwestern Gas Transmission's application before the FPC to construct a new pipeline from Portland, Tennessee, to the U. S.-Canadian border where it would link up with the Trans-Canada Pipe Line Company. The Justice Department brought suit under the antitrust laws largely on the basis of charges by Wisconsin Governor Vernon Thomson that the three companies had "acted collusively" to prevent Midwestern from obtaining natural gas. The indict-

ment further alleges that because of the illegal conspiracy, gas consumers in parts of each of the four states to be served had been prevented from obtaining gas.

John F. Merriam, president of Northern Natural Gas Company, commented after the indictment was handed down that "since Northern was the first to file application to serve the northern Minnesota communities, it is annoying to us that we should be accused of conspiring to block service to those communities."

ANTITRUST officials look upon the case as having unusual significance because it is the first indictment handed down charging natural gas companies with conspiring to eliminate competition. The government has another antitrust suit pending in the natural gas field, but that involves a merger of Pacific Northwest Pipeline Corporation and El Paso Natural Gas Company.

Commenting on the Midwestern case, the Justice Department's antitrust chief, Victor R. Hansen, declared "the indictment seeks to insure that private groups cannot—without bringing on criminal proceedings—conspire to deprive any section of this country of needed fuel supply."

James F. Oates, Jr., former president of Peoples Gas Light & Coke and now president of the Equitable Life Assurance Society of New York, defended his course of action in the Midwestern case as "not only completely legal but a matter of solemn duty." Oates said his opposition to the entry of Midwestern into the upper Midwest area "was based primarily on the undeniable fact that their proposal to sell gas solely to great industrial concerns would inevitably have resulted in higher prices for gas to the hundreds of thousands of individual consumers in the Chicago area."

Telephone and Telegraph

Telephone Industry Loses Frequency Band

THE Federal Communications Commission has in effect decided to restrict use of microwave frequencies in the 890-942 megacycle section of the radio spectrum to the federal government. Under proposed orders and opinions issued April 18th, both private industries and telephone companies would be excluded from this megacycle band in order to set up a broader reservation of frequencies for a so-called "radiopositioning" use by the government.

Although interested parties are as usual invited to comment on the proposed orders, there is little likelihood that they will be changed. This means that pending cases before the FCC, in which telegraph and telephone companies were competing with private industries for preferred if not exclusive use of certain frequencies for conducting their public communications business, have been rendered moot for all practical purposes.

Telephone companies now operating in the 890-942 megacycle band will probably be allowed to continue to operate, but subject to certain interference and restrictions, such as use of the band by ISM users (industrial, scientific, and medical). ISM usage has so far caused little inter-



ference, and most telephone companies now operating can probably continue to do so without difficulty through 1961 when usage authority for most of them runs out. Under the proposed FCC order, however, no new microwave establishments in the 890-942 band will be permitted. After 1961, telephone companies could use the 2,200 megacycle band area of the spectrum, but at present no manufacturer is making equipment to operate on such frequencies.

THE FCC apparently intends to go through with pending cases involving requests from telephone companies to use the 890-942 megacycle band. But the commission's order makes the outcome pretty certain. The order states:

The commission is still considering comments and/or testimony received in Dockets 11866 and 11997 in connection with such subjects as licensee eligibility, technical standards, various philosophies expressed in connection with private *versus* common carrier uses of the radio frequency spectrum and various suballocations to nongovernment services. No specific proposals concerning these matters are being issued at this time and such matters will continue to be studied by the commission. However,

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as a result of the commission's order adopted today amending its Table of Frequency Allocations, nongovernment services will have suffered a loss of spectrum space above 890 megacycles. Additional space will be lost by some of these services if the allocations proposals set forth herein are adopted. Therefore, it must be recognized that, to the extent such services may lose spectrum space, such possible loss will necessarily have a bearing on subsequent decisions of the commission concerning suballocations and licensee eligibility.

The commission wishes to direct especial attention to its proposal in connection with the band 942-952 megacycles. As evidenced in the proceeding in Docket No. 11866, there exists a particularly difficult allocation problem arising from the fact that common carriers have extensively activated domestic fixed systems in the band 890-940 megacycles wherein the frequency 915 megacycles has been allocated both nationally and internationally for ISM use with the condition that radiocommunications service in this band would have to accept any interference caused by the operation of ISM equipment. In the commission's order adopted today the band 890-942 megacycles was allocated, due to national defense considerations, to the government. Although serious consideration was given by the commission and by the ODM [Office of Defense Mobilization] to the possibility of ISM interference to government services, the ODM has recognized that the radiopositioning service in the band 890-940 megacycles must accept any harmful interference caused by the operation of ISM equipment on 915 megacycles. The operation of government stations in the 890-942 megacycle band will increase the likelihood of additional

interference being caused to those existing fixed stations which may continue to be authorized in this band and the commission's order reallocating the band takes this fact into consideration and "freezes" the band as far as new assignments are concerned. . . .

COMMENTS by telephone companies will no doubt be considered by the FCC. But it is clear that national defense requirements have dictated the new policy. Furthermore, the commission noted in its order that the proposed changes have been prompted by the convening of the Radio Conference of the International Telecommunication Union in Geneva, Switzerland, scheduled to begin July 1, 1959.

Celler Hits Long-distance Rates

THE House Antitrust Subcommittee, which has been investigating enforcement of a 1956 consent decree involving the Bell system's control of Western Electric Company, is preparing to look into the reasonableness of long-distance phone rates. Subcommittee Chairman Celler (Democrat, New York) has ordered his staff to study possible reductions in interstate rates, although the subject is one totally unrelated to the purpose of the subcommittee's investigation. Subcommittee Staff Counsel Herbert Maletz has been instructed to confer with the FCC on the advisability of reducing long-distance rates and to report back to the subcommittee.

Celler's action came after the subcommittee heard testimony from Bernard Strassburg, acting chief of the FCC's telephone division. In his testimony, Strassburg explained that the FCC had granted a long-distance rate boost in January, 1953, after finding that AT&T's earnings on long-distance calls had declined to 5.1 per cent. An increase of \$65 million was

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granted in order to bring earnings up to 6.5 per cent.

For the last three years, said Strassburg, earnings have actually amounted to 7.7 per cent in 1955, 7.8 per cent in 1956, and 7.3 per cent in 1957. Celler jumped on this testimony to declare that if rates had been held to 6.5 per cent, long-distance users would have saved \$159 million over the three years—\$52 million in 1955, \$62 million in 1956, and \$45 million in 1957.

Other testimony before the subcommittee brought out that FCC Commissioner Hyde, while serving as commission chairman in June, 1954, had assured Presidential Assistant Sherman Adams that the long-distance rate increase had been granted only after lengthy conferences with company officials. There was also evidence that AT&T had from time to time voluntarily reduced its long-distance rates.

Bartley Renominated

PRESIDENT Eisenhower has renominated Robert T. Bartley to another seven-year term on the FCC. Bartley was first appointed to the commission by former President Truman in 1952. A nephew of House Speaker Sam Rayburn, Bartley got his first start in government service in 1932 as a statistician for the House Interstate Commerce Committee, of which Rayburn was chairman at the time. Bartley at various times was an analyst for the SEC, an official of the Yankee Radio Network, and from 1948 to 1952 administrative assistant to Speaker Rayburn. His confirmation by the Senate is expected.

Telephone Fair

THE telephone industry has been watching with interest this month a

merchandising activity in Washington, Iowa, sponsored by the General Telephone System. It is the "Telephone Fair," with the entire community activated in a program designed to make every Washington resident aware of the newest in telephone equipment and services.

The purpose behind the "Telephone Fair" is to use one community as a test town for a controlled depth study of merchandising and promotional techniques, and set up a plan that can be followed in all operating areas to increase telephone service and use.

"We have selected Washington," said Joseph Van Horn, president of General Telephone of Iowa, "because it is a typically American town with a higher than average percentage of dial telephone users. We therefore feel that the opinions of Washingtonians about our new equipment will give us a good indication of how other Americans will respond to it."

All the new devices are shown in a special trailer parked in the town square where the public sees and tests such new devices as the hand's-free telephone, the dial-a-phone, the sound booster telephone, a complete range of color telephones, the electronic secretary, illuminated dial telephones, etc.

Donald C. Power, president of General Telephone System, feels that this is one of the most important forward steps in the telephone industry. "For many years, the telephone industry has concentrated on the development of the finest instruments and communication systems," he said. It is time now that we turned our attention toward merchandising our services in a way that will give the public the most possible service, and that we acquaint them with all of the services a telephone company offers."



Financial News and Comment

By OWEN ELY

Recent Regulatory Developments

ROBERT S. QUIG, manager of the rate department of Ebasco Services, gave a talk on regulation before the general management section of the AGA a few weeks ago, which we summarize as follows:

He did not go into the pros and cons of the Memphis case,¹ but said that "too much is at stake, not only from the point of view of service to the millions of customers but equally with regard to the investment of people in the \$18 billion gas industry, for management not to be able to make some plans and know that they are within the framework of a regulatory policy that can stand legal and economic tests."

Mr. Quig called attention to important gains made in the past year or so with respect to use of fair value, or other favorable adjustments of the rate base. It is not generally realized perhaps that in the 43 states which have commissions with jurisdiction over electric and gas utilities, the laws in 40 of these states do not specifically prohibit the fair value principle.

The Fort Dodge decision of the Iowa supreme court last September favoring

fair value was a minor landmark.² The court refused to recognize the principles laid down by the U. S. Supreme Court in the Hope case as being applicable, and held that "the arguments against fair value are all ones of expediency, not ones of justice or fundamental fair treatment."

The Missouri supreme court, in its December decision in the Missouri Water case, also supported fair value, overruling the commission and lower court.³ The court stated:

The decreased purchasing power of the American dollar, especially since the close of World War II, is a matter of common knowledge to owners and

² Iowa-Illinois Gas & E. Co. v. City of Fort Dodge (1957) 21 PUR3d 513.

³ Missouri ex rel. Missouri Water Co. v. Missouri Pub. Service Commission (1957) —Mo—, 308 SW2d 704, 22 PUR3d 254.

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¹ Memphis Light, Gas & Water Div. v. Federal Power Commission (USCA [DC]) 21 PUR3d 209.

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users of property and consumers of goods and services. Courts also know these facts and give such consideration to them as, in justice, they should. . . . So, too, must rate-making agencies. . . .

DURING the past two and one-half years courts in Alabama, Arizona, Indiana, Iowa, Missouri, Montana, New York (telephone), North Carolina, Ohio, and Pennsylvania have upheld the fair value principles that were inherent in the basic regulatory laws of those states. However, the Maine legislature in May, 1957, passed a bill which provided that the commission, in valuing the property of any public utility, "shall not include current value." On the other hand, at about the same time, the Minnesota legislature passed a bill making it mandatory that in fixing telephone rates the Minnesota Railroad and Warehouse Commission should take fair value into account.

Mr. Quig also discussed the use of the "end of period" or "forward" rate base as a means of compensating for attrition or regulatory lag. The commissions in Arkansas, California, Connecticut, New Jersey, Massachusetts, Missouri, Montana, Virginia, Florida, Utah, Kentucky, Oklahoma, Rhode Island, Maryland, North Carolina, Alabama, Nebraska, New Mexico, Colorado, Kansas, and Wyoming have used not only "end of period" rate bases recently, but in some instances have used rate bases at least six months ahead.

At the state level Mr. Quig thinks that utility regulation has moved a considerable distance from the "end results doctrine" of the U. S. Supreme Court in the 1944 Hope decision.⁴ As mentioned above, the Iowa supreme court rejected it in the Fort Dodge case. In a recent gas case in Montana, the state supreme court said

"The Hope case is not binding upon the public service commission of Montana. The commission action must square with the Montana statutes and the decision of this court."

MR. QUIG reviewed the Hope case and pointed out that while the FPC had not used fair value, nevertheless it had increased the rate base by \$26 million over the book figure, had allowed \$600,000 increased operating expenses, and had also granted a liberal 6½ per cent rate of return. Thus it changed the ultra conservative bookkeeping used by the company, cutting down the depreciation reserve by some \$24 million and including some items which the company had charged off or had not requested.

In a recent decision awarding Oklahoma Natural Gas a rate increase, the commission in that state used an "end of period" rate base and a return of 6½ per cent; the field price escalation clause was extended in all rate cases. Kansas in the recent Empire District Electric case used an "end of month" rate base with a 6 per cent return. The Maryland commission in the Chesapeake & Potomac Telephone case⁵ used a rate base projected to June 30, 1958, in order to offset regulatory lag; and the Utah commission in the Mountain States Telephone & Telegraph case also permitted use of an average 1958 rate base.

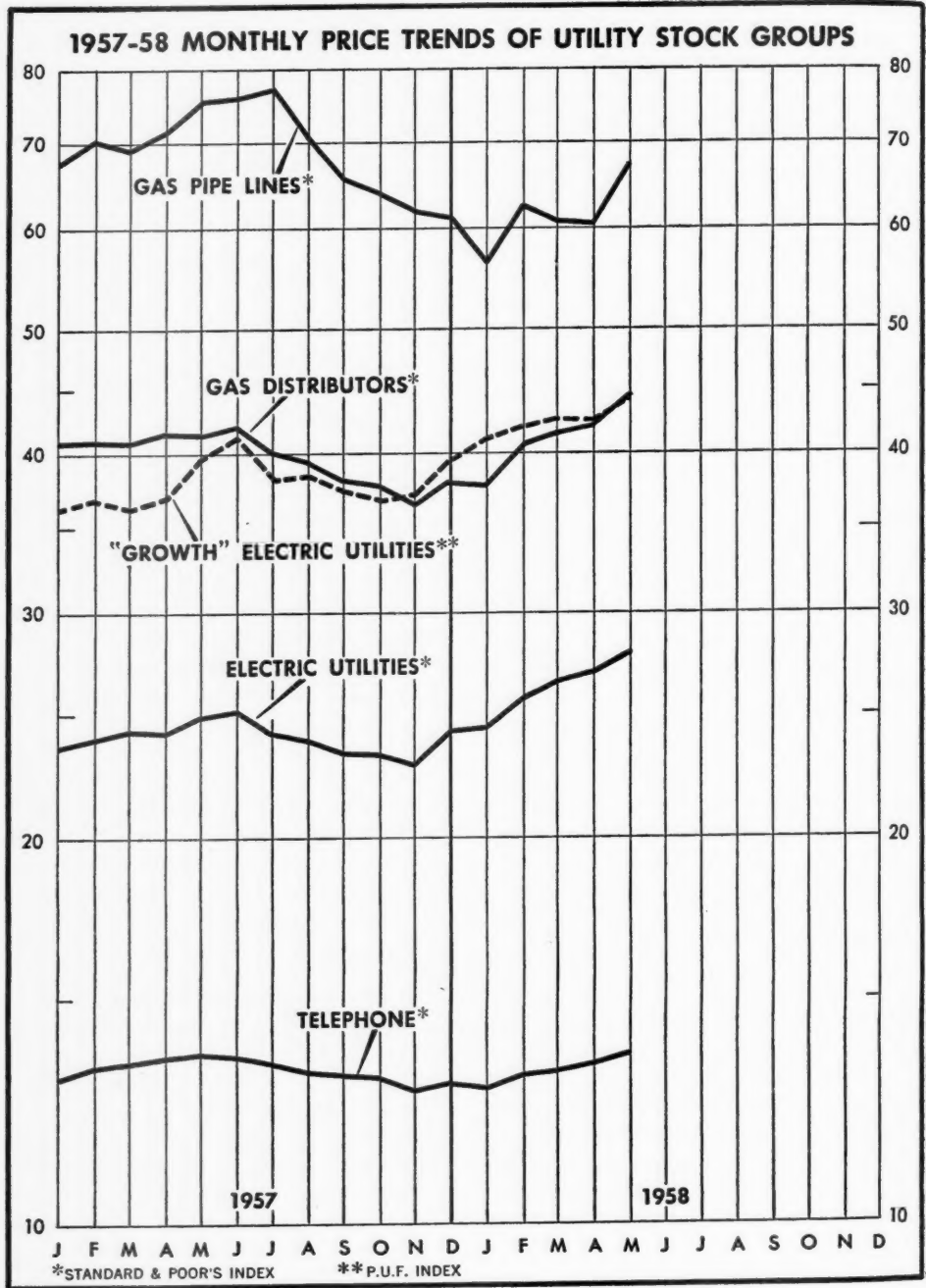
In recent years there has been some tendency to disallow working capital in the rate base because of the accrual of cash for tax payments. However, the Utah commission stated:

. . . The pay-as-you-go system of corporation income tax payments, now a part of the federal tax laws, will have the effect of reducing the period of time

⁴ Federal Power Commission v. Hope Nat. Gas Co. (1944) 51 PUR NS 193.

⁵ Re Chesapeake & P. Teleph. Co. of Maryland, 22 PUR3d 321.

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a utility will have such funds available to it. . . . Thus it seems clear that tax accruals in the future cannot be relied upon to provide working funds to the same extent as in the past. In view of all the facts we have concluded that an allowance should be made in the rate base of the company for cash working capital. . . .

SOMETIMES the commissions allow a temporary high return as a device to compensate for an inadequate rate base. The California commission took a forward-looking position in the Southern Counties Gas and Southern California Gas cases. Thus the former company, which had completed important new pipeline facilities in August, 1957, was allowed a return of 7.13 per cent for the test year 1957; since it was estimated that the rate would decline to 6.5 per cent when the new facilities went into operation. The latter company was allowed a return of 7.25 per cent on the ground that, giving effect to new facilities recently being installed, the company would earn only 6½ per cent in the immediate future.

Regarding rate of return, the commissions began to give some consideration to higher money costs and other inflationary effects. The Pennsylvania commission allowed a 6.4 per cent return on fair value rate bases for Peoples Natural Gas and Pennsylvania Gas Company. Union Light, Heat & Power of Kentucky obtained 6.75 per cent on an "end of period" rate base, and Oklahoma Natural Gas similarly received a 6½ per cent return.

More attention is now being given to adjustment clauses in both electric and gas rate schedules. Regarding electric rates Mr. Quig states: "We have seen vast extension of fuel clauses over more and more classifications of sales." With the constant increase in the cost of pur-

chased gas (particularly as to demand charge) greater attention is now being given to purchased gas adjustment clauses; and further use of such provisions would greatly relieve the "regulatory lag." In the Western Kentucky Gas case the commission pointed out that the arrangement may also benefit the consumer.⁶

. . . The strict control this commission retains over the application of the purchase gas adjustment procedures will insure that the customer be given immediate benefit and relief should the cost of gas be reduced rather than to wait upon the long, expensive, and time-consuming formalities of a rate case.

Electric Utility Earnings Bolstered by Rate Increases, Good Hydro, Heavy Interest Credits

THE following percentage changes for 1957 compared with 1956 are reflected in the December bulletin of the Federal Power Commission covering privately owned class A and B electric utilities. Kilowatt-hour sales and revenues showed the following increases over 1956:

| | Kwh. Sales Revenues | |
|--|------------------------|------|
| Residential Service | 9.5% | 8.4% |
| Commercial Service | 8.2 | 7.7 |
| Industrial Service | 2.6 | 5.5 |
| Other Sales to Ultimate Consumers | 2.0 | 2.7 |
| Sales to Other Electric Utilities. D .1 | | 1.7 |
| Total Sales | 4.4% | 6.5% |

A major adverse factor was the 12.1 per cent increase in fuel costs reflecting low-water conditions in some areas, higher prices for coal, oil, and gas, higher transportation costs for coal, etc. Use of coal in 1957 was only 1.6 above that in 1956, but usage of fuel oil increased 9.4

⁶ Re Western Kentucky Gas Co. 21 PUR3d 394.

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per cent and gas 8 per cent. The indicated 1957 coal efficiency rate was .93 pounds per kilowatt-hour. Obviously, most of the increase in fuel cost was due to higher prices.

Salaries and wages increased 7.3 per cent in 1957 but other expenses were held to a 3 per cent gain. Thus the increase in all operating expenses was 7.6 per cent, and depreciation and amortization were 7.4 per cent higher. The utilities were aided by less burdensome federal income taxes, possibly reflecting unnormalized deferred taxes. The gain in these taxes was only 1.7 per cent and while other federal taxes were up 16.4 per cent and state and local taxes 10.1 per cent, the total tax burden increased only 5.2 per cent.

As a result, net electric operating revenues showed a gain of 5.4 per cent and gross income 5.6 per cent. Interest on long-term debt jumped 12.8 per cent reflecting higher interest rates and a substantial amount of financing, but fortunately this was very substantially offset by a decline in amortization items and in "other income deductions," in which the interest credit for construction is the major item.

In the year 1957 there was a credit of nearly \$20 million for other income deductions compared with a debit of over \$9 million in the previous year. Thus total income deductions increased only 6.2 per cent and net income gained 5.3 per cent. Dividend payments on preferred stock in-



APRIL UTILITY FINANCING

PRINCIPAL PUBLIC OFFERINGS OF ELECTRIC AND GAS UTILITY SECURITIES

| Date | Amount (Mill.) | Description | Price To Public | Under- writing Spread | Offer- ing Yield | Aver. Yield For Securities of Similar Quality | Moody Rating | Success Of Offer- ing |
|---|-------------------|--|-----------------------|-----------------------------|------------------------|---|-----------------|--------------------------------|
| <i>Bonds and Debentures</i> | | | | | | | | |
| 4/1 | \$30.0 | Wisconsin Elec. Power 1st (s.f.) 4½s 1988 | 102.53 | .83C | 3.98% | 3.75% | Aa | a |
| 4/2 | 10.0 | Idaho Power 1st (s.f.) 4s 1988 | 100.00 | .66C | 4.00 | 3.75 | Aa | b |
| 4/2 | 10.0 | Idaho Power s.f. Deb. 4½s 1983 | 101.13 | .77C | 4.18 | 3.99 | A | b |
| 4/10 | 15.0 | Duquesne Lt. 1st 3½s 1988 | 100.18 | .72C | 3.74 | 3.69 | Aaa | b |
| 4/16 | 50.0 | Commonwealth Ed. 1st 3½s 1988 | 100.90 | .71C | 3.70 | 3.65 | Aaa | b |
| 4/16 | 30.0 | Tenn. Gas Trans. Deb. (s.f.) 5s 1978 .. | 100.00 | 1.50N | 5.00 | 4.26 | Baa | a |
| 4/17 | 59.0 | Miss. P. & L. 1st 4½s 1988 | 102.53 | .71C | 3.98 | 3.93 | A | b |
| 4/23 | 10.0 | Atlantic City Elec. 1st (s.f.) 3½s 1988.. | 102.24 | .63C | 3.75 | 3.67 | Aa | c |
| 4/23 | 19.7 | Potomac Elec. Power Conv. Deb. 3½s 1973 | 100.00 | N | 3.75 | 3.93 | A | e |
| 4/24 | 15.0 | Southern Counties Gas 1st (s.f.) 4s 1983 | 102.07 | .85C | 3.87 | 3.93 | A | c |
| 4/29 | 30.0 | Puget Sound P. & L. 1st 4½s 1988 | 101.47 | .80C | 4.04 | 3.93 | A | b |
| 4/30 | 40.0 | Phila. Elec. 1st 3½s 1988 | 99.75 | .65C | 3.76 | 3.65 | Aaa | b |
| 4/30 | 3.0 | Sierra Pac. Power 1st 4½s 1988 | 102.50 | .87C | 4.35 | 4.27 | Baa | b |
| <i>Preferred Stocks</i> | | | | | | | | |
| 4/16 | 5.0 | Atlantic City Elec. 4.75% | 100.00 | 1.82N | 4.75 | 4.37 | — | |
| <i>Common Stock—Offered to Stockholders</i> | | | | | | | | |
| 4/16 | 14.5 | New England Elec. System | 15.00 | .07C | 6.67 | | 7.9% | |
| 4/18 | .8 | Piedmont Natural Gas | 15.25 | N | 5.07 | | 8.4 | |
| 4/19 | 1.3 | Sierra Pacific Power | 23.25 | — | 6.02 | | 8.1 | |
| <i>Common Stock—Offered to Public</i> | | | | | | | | |
| 4/16 | 4.0 | Atlantic City Electric | 33.00 | 1.00N | 4.24 | | 5.5 | a |
| 4/30 | 7.3 | Portland General Electric | 24.25 | .95N | 4.95 | | 7.3 | |

C—Competitive. N—Negotiated. a—Reported issue was well received. b—Reported issue was fairly well received. c—Reported issue sold somewhat slowly. e—Offered to Stockholders.

MAY 22, 1958

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creased 4.7 per cent, and on common stock 5.5 per cent.

This was a very creditable showing considering the increase in net plant account of nearly 10 per cent and the resulting heavy financing. However, if federal income taxes had increased at the same rate as revenues, and if "other income deductions" had been the same as in 1956, net income would have decreased by \$80 million to a level slightly below that of the previous year. Thus the reasonably good 1957 record of the electric utilities seems due to built-in safeguards in the industrial rate structure, rate increases, more lenient income taxes under the 1954 code, and a favorable bookkeeping item (interest on construction credit).

IN January the electric utilities started off the year with a "bang"—net income showing a gain of 9.9 per cent over 1957, despite a decline of 3.5 per cent in industrial sales and a gain in total sales of only 1.5 per cent. How was this accomplished? Industrial revenues showed a gain of .5 per cent and total revenues 5 per cent, doubtless reflecting the operation of "take or pay" rate agreements plus increased rates allowed by the state commissions.

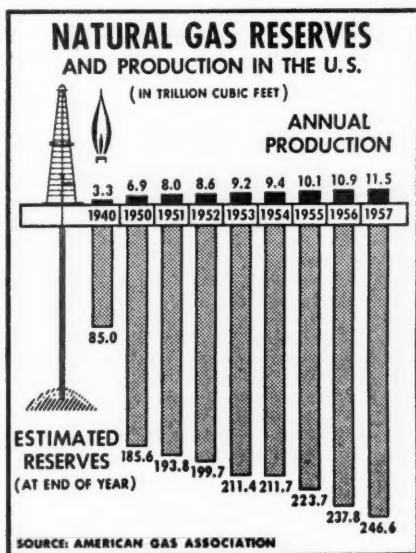
Thus the utilities were able to "hold the line" quite well with continuing revenue gains, while they also benefited considerably by a 4.7 per cent dip in fuel costs resulting mainly from greatly improved hydro conditions. Water-power plants produced 12.5 billion kilowatt-hours in January, the highest month of water output on record. As a proportion of the January total, water power increased from 18.4 per cent in 1957 to 22.6 per cent this year. Production by fuel-burning plants in January was 5.5 per cent below January, 1957.

Thus total operating expenses in January were up only 1.2 per cent, permitting

a gain of 9.9 per cent in net electric operating revenues. With the aid of a substantial increase in other utility operating income (reflecting cold weather gains for gas operations) and a substantial interest on construction credit, the utilities were able to offset the 18.9 per cent increase in interest on long-term debt and carry the 9.9 per cent gain down to net income.

Book Value Ratios

WALTER J. HERRMAN, vice president of Southern California Gas Company, has prepared an interesting 10-page statistical study on book value ratios for gas and electric companies. He has compiled (1) share earnings, (2) stock price, (3) book value, (4) ratio of price to book value, and (5) per cent earned on book value, for principal gas and electric companies arranged by states. For gas companies the per cent earned on book value (based on interim 12-month periods in 1957) varied from a low of 2.13 per cent



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to a high of 18.74 per cent; and for electric utility companies the range was 6.65 per cent to 16.32 per cent, with an average of 11.05 per cent.

In another table, Mr. Herrman shows the variations in the two ratios for various dates during the years 1952-57, inclusive. The percentages earned on book value are as follows for three utility groups:

| | Gas Distribution Companies | Gas Pipeline Companies | Electric Utilities |
|----------|----------------------------------|------------------------------|-----------------------|
| 7/15/53 | 11.15% | 12.73% | 11.26% |
| 9/15/54 | 10.41 | 12.48 | 10.98 |
| 12/15/55 | 10.98 | 14.86 | 11.36 |
| 12/14/56 | 12.60 | 16.00 | 11.47 |
| 12/13/57 | 10.86 | 15.44 | 11.05 |

These results indicate a large decline in the per cent earned by distribution gas utilities and a somewhat smaller decline for the gas pipelines and electric utilities.

THESE figures should be of considerable interest in connection with regulatory proceedings and other analyses of utility earning power. The ratio of market price to book value is of more general interest. As of December 13, 1957, the ratios were as follows:

| | |
|---|-------|
| Gas Distribution Companies | 1.40% |
| Gas Pipeline Companies | 1.77 |
| Electric and Combination Utilities | 1.55 |

RECENT FINANCIAL DATA ON GAS UTILITY STOCKS

| Annual Rev. (Mill.) | | | 4/30/58 Price About | Divi- dend Rate | Approx. Yield | Recent Share Earnings | % In- crease | Aver. Inc. In. Sh. Earnings 1952-57 (a) | Price- Earnings Ratio | Div. Pay- out | Approx. Common Stock Equity |
|------------------------------------|---|---------------------------|---------------------------|-----------------------|------------------|-----------------------------|-----------------|---|-----------------------------|---------------------|--------------------------------------|
| Pipelines and Integrated Companies | | | | | | | | | | | |
| \$ 5 | O | Ala.-Tenn. Nat. Gas | 22 | \$1.20 | 5.5% | \$1.58De | 16% | 13% | 13.9 | 76% | 41% |
| 192 | S | American Nat. Gas | 59 | 2.60 | 4.4 | 4.14Ma | 7 | 12 | 14.3 | 63 | 33 |
| 58 | A | Arkansas Louis. Gas | 32 | 1.20 | 3.8 | 1.85De | 19 | 47 | 17.3 | 65 | 52 |
| 47 | O | Colo. Interstate Gas | 39 | 1.25 | 3.2 | 4.38Se | D17 | 36 | 8.9 | 29 | 35 |
| 376 | S | Columbia Gas System ... | 18½ | 1.00 | 5.4 | 1.44Ma | 3 | 12 | 12.8 | 70 | 44 |
| 7 | O | Commonwealth Gas | 5 | — | — | .40De | D26 | 0 | 12.5 | — | 77 |
| 17 | O | Commonwealth N. G. ... | 38 | 1.80 | 4.7 | 3.07De | 11 | — | 12.4 | 59 | 43 |
| 11 | S | Consol. Gas Util. | 17 | .90 | 5.3 | 1.66Ja | D2 | 6 | 10.2 | 54 | 60 |
| 280 | S | Consol. Nat. Gas | 47 | 2.00 | 4.3 | 3.39De | 3 | 12 | 13.9 | 59 | 61 |
| 18 | O | E. Tenn. Nat. Gas | 10 | .60 | 6.0 | .85De | 2 | — | 11.8 | 71 | 20 |
| 301 | S | El Paso Nat. Gas | 33 | 1.30 | 3.9 | 2.39De | 13 | 12 | 13.8 | 54 | 20 |
| 46 | S | Equitable Gas | 31 | 1.60 | 5.2 | 2.22De | D3 | 4 | 14.0 | 72 | 42 |
| 24 | O | Gulf Interstate Gas | 12 | .50 | 4.2 | .85De | 10 | — | 14.1 | 59 | 21 |
| 27 | O | Houston N.G. | 22 | .80 | 3.6 | 1.72Ja | 36 | 8 | 12.8 | 47 | 27 |
| 20 | O | Kansas-Nebr. Nat. Gas . | 35 | 1.80(r) | 5.1 | 2.56De | 5 | 12 | 13.7 | 70 | 32 |
| 104 | S | Lone Star Gas | 38 | 1.80 | 4.7 | 2.48Ma | 12 | 10 | 15.3 | 73 | 43 |
| 75 | S | Miss. River Fuel | 32 | 1.60 | 5.0 | 2.00De | D14 | 2 | 16.0 | 80 | 49 |
| 26 | S | Montana Dakota Util. .. | 27 | 1.00 | 3.7 | 1.52De | 7 | 12 | 17.8 | 66 | 31 |
| 25 | O | Mountain Fuel Supply .. | 25 | 1.20 | 4.8 | 1.72De | 4 | 8 | 14.5 | 70 | 62 |
| 86 | S | National Fuel Gas | 20 | 1.10 | 5.5 | 1.39Ma | D17 | — | 14.4 | 79 | 58 |
| 129 | S | Northern Nat. Gas | 28 | 1.40 | 5.0 | 1.87De | 5 | 7 | 15.0 | 75 | 34 |
| 43 | S | Oklahoma Nat. Gas | 32 | 1.50 | 4.7 | 1.86F | D5 | 6 | 17.2 | 81 | 34 |
| 117 | S | Panhandle East P. L. ... | 47 | 1.80 | 3.8 | 2.74De | — | 2 | 17.2 | 66 | 41 |
| 13 | O | Pennsylvania Gas | 21 | 1.20 | 5.7 | 2.18De | D3 | 4 | 9.6 | 55 | 59 |
| 174 | S | Peoples G. L. & Coke ... | 47 | 2.00 | 4.3 | 3.01De | 4 | 7 | 15.6 | 66 | 39 |
| 101 | S | Southern Nat. Gas | 40 | 2.00 | 5.0 | 2.35De | D2 | 4 | 17.0 | 85 | 46 |
| 38 | O | Southern Union Gas | 27 | 1.12 | 4.1 | 1.53De | — | 10 | 17.6 | 73 | 31 |
| 313 | S | Tenn. Gas Trans. | 28 | 1.40 | 5.0 | 1.75De | 11 | 10 | 16.0 | 80 | 19 |
| 175 | O | Texas East. Trans. | 27 | 1.40 | 5.2 | 2.65Ma | 46 | 25 | 10.2 | 53 | 16 |
| 96 | O | Texas Gas Trans. | 22 | 1.00(j) | 4.5 | 2.07Ma | D1 | 16 | 10.6 | 48 | 27 |
| 97 | O | Transcont. Gas P. L. ... | 20 | 1.00(u) | 5.0 | 1.36De | 13 | 29 | 14.7 | 74 | 21 |
| 300 | S | United Gas Corp. | 32 | 1.50 | 4.7 | 2.51De | 10 | 12 | 12.7 | 60 | 42 |
| Averages | | | | | 4.7% | | | | 14.0 | 66% | |
| Retail Distributors | | | | | | | | | | | |
| 28 | S | Alabama Gas | 33 | \$1.60 | 4.8% | \$2.86Ma | 36% | 15% | 11.5 | 56% | 42% |
| 44 | O | Atlanta Gas Light | 31 | 1.60 | 5.2 | 2.48F | 25 | 5 | 12.8 | 65 | 33 |

FINANCIAL NEWS AND COMMENT

| Annual Rev. (Mill.) | (Continued) | 4/30/58 Price About | Dividend Rate | Approx. Yield | Recent Share Earnings | % Increase 1952-57(a) | Aver. Incr. In Sh. Earnings. 1952-57(a) | Price-Earn. Ratio | Div. Pay-out | Approx. Common Stock Equity |
|---------------------|-----------------------------|---------------------|---------------|---------------|-----------------------|-----------------------|---|-------------------|--------------|-----------------------------|
| 2 | O Berkshire Gas | 15 | 1.00 | 6.7 | 1.20F | D21 | 53 | 12.5 | 83 | 36 |
| 6 | O Bridgeport Gas | 28 | 1.60 | 5.7 | 1.69De | D34 | 1 | 16.6 | 95 | 50 |
| 5 | O Brockton-Taunton Gas .. | 15 | .90 | 6.0 | 1.18De | D8 | 43 | 12.7 | 76 | 41 |
| 70 | S Brooklyn Union Gas | 44 | 2.20 | 5.0 | 2.92De | 4 | 13 | 15.1 | 68 | 43 |
| 4 | O Cascade Nat. Gas | 6 | — | — | Def.De | — | — | — | — | 18 |
| 36 | O Central Elec. & Gas | 18 | 1.00 | 5.6 | 1.58Je | D8 | 9 | 11.4 | 63 | 17 |
| 13 | O Cent. Indiana Gas | 14 | .80 | 5.7 | 1.07De | 3 | 7 | 13.0 | 75 | 67 |
| 5 | O Chattanooga Gas | 54 | .30 | 5.5 | .55F | 44 | 14 | 10.0 | 55 | 46 |
| 66 | O Gas Service | 27 | 1.36 | 5.0 | 2.31De | 20 | 7 | 11.7 | 59 | 35 |
| 8 | O Hartford Gas | 38 | 2.00 | 5.3 | 1.89De | D37 | 0 | 20.1 | 106 | 37 |
| 3 | O Haverhill Gas | 19 | 1.32 | 6.9 | 1.87Ma | D9 | 20 | 10.2 | 71 | 58 |
| 18 | O Indiana Gas & Water ... | 21 | 1.00(k) | 4.8 | 1.51Ma | — | 11 | 13.9 | 66 | 47 |
| 48 | S Laclede Gas | 18 | .90 | 5.0 | 1.31De | 20 | 7 | 13.8 | 69 | 33 |
| 5 | O Michigan Gas Util. | 20 | 1.05 | 5.3 | 1.22De | D16 | 18 | 16.4 | 86 | 34 |
| 5 | O Midsouth Gas | 12 | .57 | 4.8 | .65Ap | 4 | D | 18.5 | 88 | 39 |
| 43 | O Minneapolis Gas | 27 | 1.45 | 5.4 | 2.05De | 3 | 12 | 13.2 | 71 | 42 |
| 15 | O Miss. Valley Gas | 20 | 1.12 | 5.6 | 1.85De | 12 | 14 | 10.8 | 61 | 33 |
| 5 | O Mobile Gas Service | 20 | 1.00 | 5.0 | 1.30De | 11 | 0 | 15.4 | 77 | 35 |
| 7 | O New Haven Gas | 32 | 1.80 | 5.6 | 2.36De | 4 | 0 | 13.6 | 76 | 68 |
| 13 | O New Jersey Nat. Gas ... | 32 | 1.40(i) | 4.4 | 2.69Ma | 14 | — | 11.9 | 52 | 35 |
| 80 | O No. Illinois Gas | 21 | .88 | 4.2 | 1.38F | 5 | — | 15.2 | 64 | 54 |
| 9 | O North Penn Gas | 10 | .60 | 6.0 | .78De | D23 | 8 | 12.8 | 77 | 58 |
| 240 | S Pacific Lighting | 45 | 2.00 | 4.4 | 2.67Ma | 5 | 0 | 16.9 | 75 | 35 |
| 22 | O Pioneer Nat. Gas | 28 | 1.40 | 5.0 | 2.13De | 5 | 13 | 13.1 | 66 | 36 |
| 16 | O Portland Gas & Coke ... | 16 | .72 | 4.5 | 1.06Ma* | D18 | 4 | 15.1 | 68 | 39 |
| 2 | O Portland Gas Lt. | 10 | .50 | 5.0 | 1.01De | 38 | 0 | 9.9 | 50 | 25 |
| 9 | A Providence Gas | 9 | .56 | 6.2 | .56De | D10 | 13 | 16.1 | 100 | 50 |
| 3 | A Rio Grande Valley Gas ... | 3 | .15 | 5.0 | .24De | D14 | 8 | 12.5 | 63 | 52 |
| 5 | O So. Atlantic Gas | 14 | .80 | 5.7 | .96Se | D9 | 5 | 14.6 | 83 | 34 |
| 12 | O So. Jersey Gas | 33 | 1.50(q) | 4.5 | 2.18Ma | 14 | 24 | 15.1 | 69 | 47 |
| 29 | S United Gas Impr. | 40 | 2.00 | 5.0 | 2.47De | 1 | 5 | 16.2 | 81 | 64 |
| 51 | S Wash. Gas Light | 41 | 2.00 | 4.9 | 2.77De | D9 | 2 | 14.8 | 72 | 41 |
| 11 | O Wash. Nat. Gas | 13 | (1) | — | .28De | D15 | — | — | — | 41 |
| 8 | O Western Ky. Gas | 13 | .60 | 4.6 | .88De | D10 | 4 | 14.8 | 68 | 38 |
| Averages | | | | 5.2% | | | | 13.9 | 72% | |



RECENT FINANCIAL DATA ON TELEPHONE, TRANSIT, AND WATER STOCKS

| Annual Rev. (Mill.) | | 4/30/58 Price About | Dividend Rate | Approx. Yield | Recent Share Earnings | % Increase 1952-57(a) | Aver. Incr. In Sh. Earnings. 1952-57(a) | Price-Earn. Ratio | Div. Pay-out | Approx. Common Stock Equity |
|---------------------------------|-----------------------------|---------------------|---------------|---------------|-----------------------|-----------------------|---|-------------------|--------------|-----------------------------|
| Communications Companies | | | | | | | | | | |
| Bell System | | | | | | | | | | |
| \$6,313 | S Amer. T. & T. (Cons.) .. | 176 | \$9.00 | 5.1% | \$13.00F* | D1% | 3% | 13.5 | 69% | 64% |
| 303 | A Bell Tel. of Canada | 42 | 2.00 | 4.8 | 2.00De | D11 | 0 | 21.0 | 100 | 66 |
| 46 | O Cin. & Sub. Bell Tel. ... | 83 | 4.50 | 5.4 | 4.93De | D12 | 1 | 16.8 | 91 | 100 |
| 232 | A Mountain Sts. T. & T. ... | 124 | 6.60 | 5.3 | 8.32De | D8 | 3 | 14.9 | 79 | 73 |
| 324 | A New England T. & T. ... | 139 | 8.00 | 5.8 | 8.16Ma | D2 | 2 | 17.0 | 98 | 55 |
| 864 | S Pacific T. & T. | 127 | 7.00 | 5.5 | 7.50F | D14 | 1 | 16.9 | 93 | 59 |
| 108 | O So. New Eng. Tel. | 37 | 2.00 | 5.4 | 1.90De | D13 | — | 19.5 | 105 | 64 |
| Averages | | | | 5.3% | | | | 17.1 | 91% | |
| Independents | | | | | | | | | | |
| 5 | O Anglo-Canadian Tel. | 31 | \$1.20 | 3.9% | \$3.25De | 1% | 56% | 9.5 | 37% | 55% |
| 41 | O British Col. Tel. | 43 | 2.00 | 4.7 | 2.62De | D9 | 5 | 16.4 | 76 | 31 |
| 4 | O Calif. Inter. Tel. | 13 | .70 | 5.4 | .78De | D2 | — | 16.6 | 90 | 24 |
| 18 | O Calif. Water & Tel. | 22 | 1.20 | 5.5 | 1.32De | D13 | — | 16.7 | 91 | 48 |
| 16 | O Central Telephone | 21 | 1.00(m) | 4.8 | 1.94My | NC | 16 | 10.8 | 52 | 29 |
| 5 | O Commonwealth Tel. | 16 | .90 | 5.6 | 1.44De | 23 | — | 11.1 | 63 | 37 |
| 4 | O Florida Telephone | 22 | .90 | 4.1 | 1.07De | 24 | 1 | 20.6 | 84 | 46 |

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| Annual Rev. (Mill.) | (Continued) | 4/30/58 Price About | Divi- dend Rate | Approx. Yield | Recent Share Earnings | % In- crease 1952-57 (a) | Aver. Incr. In. Sh. Earnings 1952-57 (a) | Price- Earnings Ratio | Div. Pay- out | Approx. Common Stock Equity |
|---------------------------|-----------------------------|---------------------------|-----------------------|------------------|-----------------------------|--------------------------------|--|-----------------------------|---------------------|--------------------------------------|
| 289 | S General Telephone | 46 | 2.00 | 4.3 | 3.02F | NC | 32 | 15.2 | 66 | 34 |
| 16 | O Hawaiian Telephone | 18 | 1.00 | 5.6 | 1.19Ja* | D11 | 7 | 14.9 | 84 | 38 |
| 7 | O Inter-Mountain Tel. | 15 | .80 | 5.3 | .94De | 17 | 2 | 16.0 | 85 | 63 |
| 21 | O Rochester Tel. | 20 | 1.00 | 5.0 | 1.33De | D18 | 0 | 15.0 | 75 | 39 |
| 4 | O Southeastern Tel. | 19 | .90 | 4.7 | 1.11De | D21 | — | 17.1 | 81 | 54 |
| 10 | O Southwestern St. Tel. ... | 22 | 1.20 | 5.5 | 1.66De | 5 | 4 | 13.3 | 72 | 35 |
| 10 | O Tel. Service of Ohio | 120 | 1.40(w) | 1.2 | 6.95Se | NC | NA | 17.3 | 20 | NA |
| 34 | O United Utilities | 23 | 1.25 | 5.4 | 1.54De | D6 | 1 | 14.9 | 81 | 40 |
| 13 | O West Coast Tel. | 21 | 1.00 | 4.8 | 1.48Oc | NC | 18 | 14.2 | 68 | 41 |
| 260 | S Western Union Tel. | 18 | 1.20 | 6.7 | 2.03De | D8 | — | 8.9 | 59 | 85 |
| Averages | | | | 4.9% | | | | 14.6 | 69% | |
| Transit Companies | | | | | | | | | | |
| 21 | O Baltimore Transit | 6 | — | — | \$1.01De | 124% | — | 5.9 | — | 41% |
| 12 | O Cincinnati Transit | 5 | \$.30 | 6.0% | .52De | 9 | 0% | 9.6 | 58% | 49 |
| 8 | O Dallas Transit | 6 | .35 | 5.8 | .90De** | 58 | 0 | 6.7 | 39 | 54 |
| 65 | S Fifth Ave. Coach | 19 | 2.50(o) | 13.2(o) | 2.46De | D29 | 0 | 7.7 | 102 | 68 |
| 308 | S Greyhound Corp. | 17 | 1.00 | 5.9 | 1.22De | D4 | 0 | 13.9 | 82 | 45 |
| 25 | S Nat. City Lines | 23 | 2.00 | 8.7 | 2.74De | 12 | 9 | 8.4 | 73 | 94 |
| 13 | O Niagara Frontier Trans. . | 9 | .60 | 6.7 | .77De | 35 | 0 | 11.7 | 78 | 78 |
| 65 | O Phila. Trans. | 6½ | .60 | 9.2 | 1.23De | D25 | — | 5.3 | 49 | 38 |
| 17 | A Pittsburgh Rys. | 5½ | .50 | 9.1 | Deficit | — | — | — | — | 90 |
| 6 | O Rochester Transit | 5 | .40 | 8.0 | .64De | D6 | 29 | 7.8 | 63 | 100 |
| 22 | O St. Louis P. S. | 8 | 1.00 | 12.5 | .57De | D17 | 19 | 14.0 | 175 | 94 |
| 15 | S Twin City R. T. | 13 | 1.80 | 13.8 | 1.01De | D16 | D | 12.9 | 178 | 53 |
| 21 | O United Transit | 5 | .60 | 12.0 | .87Ma | D1 | 11 | 5.7 | 69 | 51 |
| Averages | | | | 9.2% | | | | 9.1 | 88% | |
| Water Companies | | | | | | | | | | |
| Holding Companies | | | | | | | | | | |
| 43 | S American Water Works . | 12½ | \$.60 | 4.8% | \$1.02De | 2% | 5% | 12.3 | 59% | 17% |
| Operating Companies | | | | | | | | | | |
| 5 | O Bridgeport Hydraulic ... | 31 | \$1.70(r) | 5.5% | \$2.05De | D2% | 5% | 15.1 | 83% | 53% |
| 15 | O Calif. Water Service ... | 45 | 2.40 | 5.3 | 3.28Ma | 3 | 6 | 13.7 | 73 | 33 |
| 4 | O Elizabethtown Water ... | 39 | 2.00 | 5.1 | 3.28De** | 16 | 31 | 11.9 | 61 | 56 |
| 11 | S Hackensack Water | 44 | 2.00 | 4.5 | 3.18De | 11 | 6 | 13.8 | 63 | 38 |
| 8 | O Indianapolis Water | 21 | 1.00 | 4.8 | 1.26De | D11 | 0 | 16.7 | 79 | 35 |
| 6 | O Jamaica Water | 35 | 2.00 | 5.7 | 3.10† | 8 | 0 | 11.3 | 65 | 26 |
| 5 | O New Haven Water | 60 | 3.40 | 5.7 | 2.30De | D20 | 0 | 26.0 | 148 | 61 |
| 2 | O Ohio Water Service | 27 | 1.50(t) | 5.6 | 2.64De | 2 | 10 | 10.2 | 57 | 32 |
| 8 | O Phila. & Sub. Water | 33 | .50(e) | 1.5 | 3.11De | 3 | 7 | 10.6 | 16 | 28 |
| 2 | O Plainfield Union Wtr. .. | 58 | 3.00 | 5.2 | 4.42De | D12 | 2 | 13.1 | 68 | 37 |
| 4 | O San Jose Water | 49 | 2.80(r) | 5.7 | 3.51Ma | D3 | 9 | 14.0 | 80 | 42 |
| 10 | O Scranton-Springbrook ... | 19 | 1.00 | 5.3 | 1.54De | 8 | 7 | 12.3 | 65 | 29 |
| 5 | O South. Calif. Water | 17 | .80 | 4.7 | 1.17Ma | D2 | 12 | 14.5 | 68 | 31 |
| 4 | O W. Va. Water Service .. | 22 | .68(p) | 3.1 | 1.75Ma | 5 | 9 | 12.6 | 39 | 17 |
| Averages | | | | 4.8% | | | | 14.0 | 69% | |

A—American Stock Exchange. O—Over-counter or out-of-town exchange. S—New York Stock Exchange. Ja—January; F—February; Ma—March; Ap—April; My—May; Je—June; Jy—July; Au—August; Se—September; Oc—October; N—November; De—December. NC—Not comparable. NA—Not available. D—Deficit 1951. *On average shares. **Calendar year 1956. †Adjusted to eliminate 20 cents per share of nonrecurring tax savings. (a)—For companies which have reported calendar year 1957 earnings (for other companies the increase is for 1951-56). (e)—Also 5 per cent stock dividend December 10, 1957. (i)—Two per cent stock dividend December 10, 1957. (j) Two per cent stock dividend December 30, 1957. (k)—Two per cent stock dividend December 19, 1957. (l) Four per cent in stock May 3, 1957. (m)—Ten per cent stock dividend January 2, 1957. (o)—Company took no action on dividend payable for the first quarter of 1958, but declared 50 cents applicable for year 1957, as a year-end extra. (p)—Also 1 per cent stock dividend quarterly. (q)—Also 10 per cent stock dividend May 19, 1958. (r)—Includes extras. (t)—Also 2 per cent stock dividend September 30, 1957. (u)—Also 10 per cent stock dividend December 30, 1957. (v)—Also 2 per cent stock dividend December 30, 1957. (w)—Also 4 per cent stock dividend December 31, 1957.



What Others Think

Rate Regulation Problems Discussed By Natural Gas Attorneys

PROBLEMS of capital financing by natural gas pipeline companies and how rate of return in today's money market affects equities of investors were discussed by L. E. Katzenbach in an address before the Federal Power Bar Association on April 10th in Washington, D. C. He began by saying, investors in the common stocks of natural gas transmission companies "seek a combination of relatively safe dividend income and a prospect of gradual dividend increases and price appreciation over a period of years. The economics of the natural gas industry are recognized as being sound. The product is favorably priced to the consumer in relation to other competing fuels in most areas of the country and the growth factor, in terms of increasing demand, appears well-assured. Accordingly, given fair regulation, the securities of the gas pipeline companies meet the requirements of this kind of investor."

Katzenbach underscored the importance of the individual investor by citing the issuance of stock of a well-known natural gas transmission company. Of an offering totaling nearly \$20 million, 80 per cent was purchased by individuals. The remaining 20 per cent was taken by institutional investors, investment trusts, fire and

casualty insurance companies, and pension funds.

If one looks at the price level of pipeline securities, Katzenbach declared, one can see that gas pipeline companies are required to pay a relatively higher rate for their debt securities and preferred stocks than are electric utilities. He chose electric utilities for comparison because of the similarity in the investment characteristics of their securities. Typical electric utilities having debt securities which carry an "A" rating by the rating services can, in today's market, borrow money at an interest rate about one-half of one per cent lower than an "A"-rate debt issue of pipeline companies. A slightly greater disparity exists between issues having the next lower rating.

IN an attempt to answer why the cost of borrowing for pipeline companies is greater than for similarly rated issues, Katzenbach had this to say:

Although the market for natural gas securities has been widening over the last ten years, there are still a number of investors who shy away from putting any money, or more than a limited

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amount of money, into this industry. . . . A few years ago the larger life insurance companies in this country were able to take for investment all, or practically all, of the debt securities which the pipeline industry needed to issue in order to finance its expansion. . . . In more recent years, of course, competition for capital has intensified. The shift of funds out of government securities into private enterprise has ceased to become a factor. This has made it necessary for the pipeline industry to go further afield in finding buyers for its debt issues. In so doing it has not found the same degree of receptivity for its securities. Consequently, in order to attract the necessary funds it has been required to pay relatively higher interest rates.

Aggravating this situation that has developed are other factors. The pipeline industry, being a relatively young industry, has not had sufficient time to win friends as have other segments of the utility industry. In addition, it is handicapped by the confused regulatory atmosphere with which it is surrounded. Various policy-making decisions made by the Federal Power Commission have been upset by the courts with a consequence that

Investors are left wondering how the commission is going to administer the act as now construed by these court decisions. It is easy to understand why an extra inducement in the form of higher interest rates is necessary to attract capital to the pipeline industry when the investor, in these times, has a wide variety of choices for investment where the imponderables are of much smaller magnitude.

APART from the uncertainties which have stemmed from court decisions in

the Phillips case, the City of Detroit case, and the Memphis case, investors today are watching the question of "rate of return," asserted Katzenbach. He stated:

You are all aware, of course, of the relatively high cost of money which now exists in all areas of the money market. Taking a look at the series of first mortgage bond issues which have been issued by any of the fast-growing pipeline companies, we find that the trend of interest rates, starting off at around 3 per cent ten or twelve years ago, has gradually risen to more than 5 per cent when the market was at its worst last year, to somewhere between $4\frac{1}{2}$ to 5 per cent under today's market conditions. Interest rates payable on debenture issues during the same period have risen from a level of between 3 and 4 per cent to as high as 6 per cent at the peak and are now back closer to the 5 per cent level. Similarly, preferred stock dividend rates, starting off at around 4 per cent, have gone well above 6 per cent and are now fairly close to the 6 per cent level.

KATZENBACH admitted that all types of borrowers, public utility and otherwise, have experienced a similar, if not such a pronounced, upward trend in interest costs.

But he pointed out that the heavy sinking-fund schedules in the pipeline industry make it especially sensitive to the effect of these higher interest costs. He said:

. . . These sinking funds result in the rapid retirement of the earlier low-cost issues and their replacement with the higher-cost issues of the more recent past. As you probably know, the electric light and power industry bond issues carry much lower sinking-fund require-

WHAT OTHERS THINK

ments and most of these requirements may be offset with, or canceled out against, net property additions, with the result that actual retirements of this industry's previously issued bonds are a rare occurrence. The pipeline industry, on the other hand, is not able to offset sinking-fund requirements with property additions.

As a natural consequence of the greater cost of capital in the pipeline industry, the rate of return on the common stock equity has decreased. Mr. Katzenbach stated:

When interest rates on debt issues and dividend rates on preferred stock issues are rising, the return to the common stockholder should also rise, not be squeezed, as inevitably happens if the overall rate of return is not adjusted upward. . . .

Investors in natural gas pipelines seemed to have retained some confidence that the commission would realize that a higher rate of return is justified today, rather than was the case in earlier years when the whole pattern of interest rates was lower.

The electric light and power industry and the natural gas pipeline industry compete with each other for capital. Both have in the past been allowed a 6 per cent rate of return by their respective regulatory authorities at a time when the cost of senior capital was much lower than it is today.

Mr. Katzenbach stated:

. . . A number of state commissions, in cases involving electric and gas dis-

tribution companies subject to their regulation, have already recognized the need for and have granted a rate of return higher than 6 per cent in order to attract capital under today's conditions. . . .

The higher cost of money is catching up with the pipeline industry at a very much faster pace than is true with the electric utility industry, he said. "The natural gas industry needs promptly a greater upward adjustment for the reasons I have cited or it will be unable to attract capital in competition with the electric industry."

It is vital that we sustain the confidence of investors that there will be an increase in the rate of return allowed by the FPC to the gas pipeline industry.

KATZENBACH gave a quotation from an address by Chairman Kuykendall to the Security Analysts in New York, who said that, "Some people, both in the natural gas industry and in the political field, have oversimplified the various problems of the natural gas industry. They have believed, or have acted as though they believed, that each issue merely presented the question of 'whom are you for?—the consumer or the industry?' Such persons have, for example, opposed a rate increase as an inherently evil thing, without any regard to the question of whether a rate increase was necessary in order for service to be rendered. . . ." Such an attitude likewise promotes hostility to legislation supported by any segment of the industry, he said, "apparently on the theory that if the industry wants it, it's bad for consumers."



The March of Events

Power Plant to Be Constructed

THE Army announced last month that work would start in May on construction of the first nuclear power plant in Alaska. It will be built at Ft. Greeley, about 85 air miles southeast of Fairbanks, on the Alaska highway. The Army said a contract for construction of the plant had been awarded to a Seattle company for \$4,897,217.

The Alaska reactor plant will be modeled on the prototype now operating at Ft. Belvoir, Virginia. The Army said the

Ft. Greeley site was selected because it would provide operation tests under extremes of temperature, the thermometer dropping there as low as 63 degrees below zero in winter and mounting to 90 degrees above zero in summer.

When completed in 1960, the Alaska plant will produce sufficient electricity for a town of about 2,000 residents and will have a heating capacity of 42 million Btu per hour in steam for space heating. Residential heating furnaces produce from 90,000 to about 185,000 Btu.

Georgia

Gas Rate Boost Approved

ANATURAL gas rate increase of nearly 10 per cent to affect approximately 90 per cent of users in Georgia was approved by the state public service commission last month. The increase, which was granted to the Atlanta Gas Light Company, the Gas Light Company of Columbus, and the Mid-Georgia Gas Company of Conyers, covered the increase in

wholesale price previously granted the Southern Natural Gas Corporation by the Federal Power Commission.

Southern Natural, a pipeline operator serving parts of Mississippi, Alabama, Georgia, and South Carolina, had sought an increase in its rates amounting to slightly more than \$18 million a year. A compromise increase of \$11,022,000 annually was worked out by Southern Natural and its various customers.

Indiana

Co-op Service Restrictions Attacked

APETITION filed with the state public service commission last month by

Public Counselor George L. Diven called for a full investigation of charges by residents of Pulaski and White counties that it is unconstitutional for utility co-opera-

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tives to refuse them service unless they become stockholders.

Diven contended that any federal or state laws permitting enforced membership are unconstitutional, including the 1951 Indiana utility law.

While Diven's action was said to be specifically aimed at the Pulaski-White Rural Telephone Co-operative of Star City, it was believed that it would affect the

practice of rural electric membership corporations in compelling prospective customers to join up before they can obtain service.

The petition was brought in behalf of sixteen residents of Monticello, Buffalo, and Idaville who have been denied telephone service because they refused to pay an initiation fee of \$20 and become stockholders in the utility.

Kansas

Dispute Settled by New Rules

A PROTRACTED controversy between Kansas private power companies and REA co-operatives was terminated recently by the state corporation commission through issuance of new rules and regulations to govern the extension of power lines. Commission Chairman Marion Beatty said that under the new rules the

power company—private or REA—with service lines closest to the prospective customer and able to supply adequate service will be the one permitted to serve, generally speaking.

The dispute between private power companies and the co-ops largely centered on which should serve outlying industrial plants and installations.

Louisiana

Electric Rate Report Asked

THE New Orleans city council recently asked Utilities Director Paul L. Ristroph for a complete report on proposals to eliminate demand charges on those residential consumers of electricity which presently pay them and to provide for changes in electric rates which would gear them to the cost of fuel used to generate electricity in the city.

Ristroph had informed the council that his office had prepared for introduction a resolution authorizing New Orleans Public Service Inc. and Louisiana Power & Light Company to make these suggested changes.

Council members, however, pointed out that because of lack of full knowledge of the proposed changes no member of the council was prepared to sponsor introduction of the resolution.

The demand charge is based on consumption of electricity in excess of five kilowatts in any 15-minute period during a month and on consumption in any one month in excess of 600 kilowatt-hours. It is levied to compensate the utility company for having stand-by equipment to function during unusual periods of peak electric used. Elimination actually would result in savings of only some \$120,000 annually by residential consumers, mainly during summer months, when air conditioning is used, but Ristroph explained that the demand charges are "complex," are not understood by most consumers, and the costs of collection are almost as much as the additional revenue provided.

Gearing the electric rates to fuel costs of the two utilities involved would result in an increase in rates to the consumer if fuel costs go up and a decrease if they go

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down, Ristroph stated. Conceding that they are more likely to go up, Ristroph said that the increase would be very small

in any case. The present price of gas paid by the company is 13 cents per thousand cubic feet, he said.

Maryland

Gas Rate Boost Granted

THE state public service commission recently authorized the Baltimore Gas & Electric Company to increase its rates for gas and steam on a temporary basis May 1st.

The state commission refused permission for a proposed increase in the charge for electricity on the same basis, pending

a final decision on the company's overall rate structure.

The commission's action was in the form of withdrawal of a suspension placed on the new gas and steam rates after the company applied for increases effective February 14th. Company officials had asked to raise gas and electric rates by 6.5 per cent, and steam rates 10 per cent.

Michigan

Utility's Offer Turned Down

AN offer by Consumers Power Company to sell power wholesale to the city of Grand Haven, for distribution through the municipal lighting system, was re-

jected last month by the city council and board of public works. They reaffirmed plans to build a \$3 million steam-generating plant to meet demands for additional power.

Pennsylvania

Higher Gas Rates Authorized

THE state public utility commission recently authorized the Mercer Gas, Light & Fuel Company to raise rates an estimated \$13,200 annually for its 1,018 natural gas consumers in the Mercer area.

The rates were effective as of May 1st.

Under the new schedule rates are increased six cents per thousand cubic feet. The anticipated revenue from the increase is designed to meet an almost identical raise in the cost of its wholesale gas, the company said.

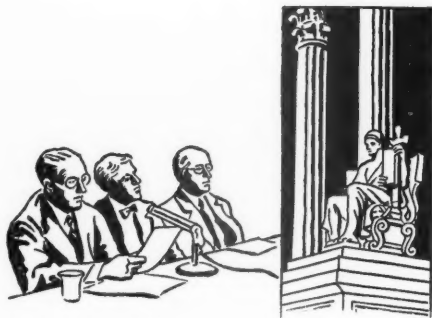
Wyoming

Cities Must Pay Utility Tax

ARULING in favor of the Wyoming State Board of Equalization was handed down by District Judge Pearson last month in a suit brought by 12 Wyoming municipalities concerning the payment of taxes on city-owned electric utilities. The cities had protested against an order from the state which said they had to pay the taxes. Counsel for the 12 mu-

nicipalities announced they would appeal the finding to the state supreme court.

Acting on the advice of the state attorney general, the board held that the electric utilities constituted a proprietary function, rather than a governmental operation. The cities contended that the utilities are a government function, citing street-lighting and similar uses as evidence.



Progress of Regulation

Trends and Topics

Rate Reductions to Meet Competition

COMPETITION in one form or another is an ever-present factor in rate making. Although regulation seeks to avoid the waste inherent in the duplication of utility facilities, sometimes, under our system of separate governmental jurisdictions, direct competition is permitted to occur between individual plants in limited areas. An appreciable number of cases have arisen involving the right of an electric company, regulated by a state commission, to establish rates in competition with a public power plant over which the commission has no control.

Assuming a strong municipal competitor, how far may a regulated company go in reducing rates in order to retain its customers? May the commission, without condoning discrimination, allow rates which result in an operating loss in a part of a company's authorized territory? Does the Fourteenth Amendment restrain the commission from interfering in a struggle where survival is at stake? Reported decisions are in substantial agreement upon these questions.

Discrimination Ruled Out

Very recently the California commission held that an electric company had a legal right to reduce rates in the Shasta dam area to meet competition without leaving itself open to a charge of locality discrimination (22 PUR3d 209). The company should not be compelled to charge rates which will destroy its service in the competitive territory, merely to maintain all of a single class of customers on an exact parity, said the commission. However, it was understood that the rate reduction would not be permitted to affect ratepayers outside the special rate area.

The fundamental question is whether or not continued service in the competitive area will burden the company's operations and its service to customers in other areas, the commission observed in an earlier decision (93 PUR NS 428). Consumers in noncompetitive areas must not be saddled with any extra cost resulting from low rates in competitive territory, and if this condition is met, there is no undue discrimination.

PUBLIC UTILITIES FORTNIGHTLY

Ruling similarly, the Oregon commission added that while a company cannot be ordered to file rates which do not afford a reasonable rate of return, neither can it be deprived of the right to meet competition by reducing rates, where the loss of revenue and the extraordinary expense of operation are charged to the stockholders (85 PUR NS 61). Such competition is not discriminatory. The only obligation of the commission, it was said, is to see that any loss resulting from competitive rates is not thrust upon ratepayers in noncompetitive areas served by the company. To much the same effect is a 1953 decision of the Michigan commission (99 PUR NS 95).

Commission Disclaims Taking Sides

If there is not enough business in a local area to sustain both a regulated company and a municipal plant, is it within the province of a regulatory body to decide which will survive? The Illinois commission considered this question many years ago, declaring that since it has no control over the entry of a municipality into competition with a private plant, it should not prevent the private plant from meeting such competition in the only way available to it (1 PUR NS 449). "While the commission does not and will not take sides in a controversy over municipal *versus* private ownership, it must nevertheless recognize its positive obligation to the ratepayers in this and other towns served by the company." Where the loss to a company and its customers will be greater or less as a result of a regulatory order, the commission should take such action as will bring the lesser loss, it was said. The commission thought that justice and fair play compelled it to permit a company to meet its competitor upon a fair basis. Reduced rates were accordingly approved, though the order was subsequently vacated on another point.

Undercutting the Competitor

The Illinois commission promptly set aside its order in the decision noted above, upon information that the reduced rates were slightly lower than the rates then being charged by the municipal plant (1 PUR NS 454). No discussion of the wrong involved in undercutting a competitor was offered. Some years ago the Michigan commission approved reduced rates for an electric company, where they met a competitor's rates but expressly did not go below them (13 PUR NS 517).

The Supreme Court of the United States rejected a contention advanced by a gas company that the Montana commission had violated its constitutional rights by an order which prevented the company from undercutting a competing utility (PUR1933C 225). The company had sought to establish rates substantially below those of the competitor. The commission had found them so low as to be unreasonable and likely to impair the company's ability to render efficient service. Rates equal to those of the competitor were authorized.

The company argued that the enforcement of the order would deprive it of the "right of competition in rates essential to protection and preservation of its property and business" and of the "right to charge rates concededly less than reasonable rates." It was urged that the company had a constitutional right by

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unrestrained cutting of rates to destroy the competitor. The court held that the commission's action was neither arbitrary nor an infringement upon any constitutional right of the company.

As a last resort in this case, a claim was belatedly made that the rates prescribed by the commission should be set aside as being too low and therefore unconstitutional. The company admitted, however, that if they were set aside, it would reduce them and drive the other utility out of business. The court rejected this claim also, noting that more than a bare assertion of confiscation must be shown.

Some years ago, the Ohio commission refused to approve a rate reduction on the ground that service would then be furnished "at less than actual cost for the purpose of destroying competition" (5 PUR NS 289).

The Tennessee commission considered the question whether a privately operated utility should be allowed to establish competitive rates for the purpose of attempting to drive out of business a publicly operated utility having an efficient plant, whereupon the privately operated utility would be enabled immediately to return its rates to the levels required by its obsolescent plant (41 PUR NS 65).

According to the commission, the company had stubbornly resisted justified rate reduction until nearly all of its customers had contracted to take service from a newly built municipal plant distributing TVA energy. To permit the company to file competitive rates would mean that it would operate at a clear out-of-pocket loss, though it could probably subsidize such operations indefinitely from its large out-of-state business. This would bring eventual ruin to the municipal plant since the community could not support both plants.

The municipality opposed the filing of reduced rates on the theory that the company should not be allowed voluntarily to establish rates so low as to be confiscatory if the commission were attempting to enforce them and the company were resisting enforcement. This position was dismissed as untenable.

The company insisted, on the other hand, that it had a right to resort to any practice to destroy a competitor. It contended that the refusal of the commission to permit the filing of competitive rates constituted confiscation, in violation of the Constitution, since it would result in a destruction of the company's property. The commission also rejected this position, observing that the contemplated destruction would be the company's own fault.

The commission noted its responsibility to determine the requirements of sound public policy. Continuity of electric service must be assured. Adverting to "the natural bias against publicly owned power distributors which characterizes most public utility commissions," the Tennessee commission observed that it was the public policy of Tennessee to encourage publicly owned electric operations. This has resulted, it was said, from the large public benefits that have been derived in this state from the operations of the Tennessee Valley Authority.

Review of Current Cases

Gas Rate Increase Limited by Competitive Fuel Prices

THE Idaho commission refused to grant the full amount of a rate increase requested by Cascade Natural Gas Corporation for service in the city of Lewiston, even though it was designed merely to reduce an operating loss. The proposed rates would have raised the cost of gas in the service area to a point at least equal to fuel oil and approximately \$10 higher than coal per ton. While the company was entitled to rate relief, the commission would not authorize an increase so large as to price gas out of the competitive market. It found that the proposed rates would in fact have this effect and would therefore not improve the company's revenues. A lesser increase calculated to make the rates competitive was authorized.

In getting started in business, apparently the company underestimated the delays it would have to face in constructing facilities and in obtaining natural gas to supply Lewiston customers. Moreover, customers were not as easily obtained as had been expected. Financial troubles developed and, as the commission noted, the applicant changed its theory of rate making from that of being a large volume seller at low rates to that of a low volume seller at considerably higher rates.

The commission thought the company, by an effective sales campaign, could realize greater revenues under the authorized rates than would be possible if the proposed rates were approved. *Re Cascade Nat. Gas Corp. Case No. U-1041-12, Order No. 4674, March 19, 1958.*



Court Directs Reopening of Gas Producer Rate Case For Receipt of Evidence

THE Federal Power Commission, in the Union Oil Company case (16 PUR3d 112; 17 PUR3d 291), dismissed applications for approval of increased rates for gas sold to a pipeline company for failure to show cost of service to the producers. On June 9, 1954, the parties had contracts with Transcontinental Gas Pipe Line Corporation, under which they agreed to furnish minimum quantities of gas for a period of twenty years, for which the price was fixed "temporarily" at 8.7915 cents per Mcf under November 1, 1954, and 16 cents per Mcf thereafter, with an automatic escalation of one cent every five years. The producers had filed their contracts as required by the commission's Orders 174, 174A, and 174B.

The court of appeals has now directed

the commission to reopen the proceedings to afford the producers an opportunity to adduce evidence relevant to the inquiry whether the proposed rate of 16 cents plus one cent state tax is just and reasonable.

Question of Evidence

The producers offered evidence as to competitive conditions in the Louisiana fields, contracts negotiated by them and others in that field, and arm's-length negotiation. They introduced evidence to show that they did not possess any dominating position in the industry, that natural gas is competitive with nonregulated fuels, that the proposed prices were comparable with unregulated prices for local consumption, that maintenance of such a

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price was necessary to provide appropriate incentives for exploration and production.

No evidence was offered to show cost of service to the producers. There was no evidence as to any economic factors related to their financial interests or needs, none as to operating expenses or capital costs, as to the return or profits they were earning under the 8.79-cent rate or which they would earn under the 16-cent rate. There was no evidence to indicate whether the rate was necessary to maintain credit and to attract capital.

The producers urged the field price, or cost of commodity, evidence as adequate. The court reviewed judicial decisions and referred to decisions by the commission. It could not agree that the precedents were authority for the proposition that the evidence thus far adduced made out a prima facie case of reasonableness of the contract price of 16 cents.

The court did not hold the evidence of field price was irrelevant, but it held that evidence of unregulated prices in the field was not sufficient to warrant a finding by the commission that a price comparable to them was just and reasonable within the intentment of the Natural Gas Act. Neither was evidence of the field price when coupled with the opinion of experts that the price must be high enough to provide an incentive for exploration and development of new sources of supply.

Reference to Recent Commission Decision

The court said its attention had been called to the opinion and order issued on

April 4, 1958, in the matter of Pan American Petroleum Corporation (Opinion No. 310, reviewed in this department below) in which the commission had found just and reasonable an increased rate from 75 to 85 cents per Mcf for an Oklahoma field without requiring proof of cost of service. A distinction between the cases was noted, although some points of distinction were not significant.

Error in Closing Case

The court concluded that the commission erred in not reopening the hearings to permit the producers to introduce evidence of a rate base which, in its written opinion, the commission said for the first time was an essential part of such an inquiry. The commission took the position that, with ample warning of the inadequacy of their proof, the failure to come forward with such evidence amounted to a calculated "gamble" by the producers which they lost. The court said that such a gamble was an expensive one. The court thought it quite clear that the commission might adopt some pragmatic standard to apply to these cases.

The court also concluded that the producers were subject to regulation under the act; that the increases, although predetermined by contract before the decision in the Phillips case, could not be changed without compliance with the provisions of the Natural Gas Act; and that the producers should have an opportunity to adduce additional evidence. *Bel Oil Corp. et al. v. Federal Power Commission*, Nos. 16581, 16583, 16584, April 23, 1958.



Burden of Proof on Independent Producers Relaxed in Rate Proceeding

THE Federal Power Commission relaxed its usual requirements of rate-

base-rate-of-return evidence in a rate proceeding involving a number of independ-

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ent natural gas producers operating in the West Edmond field in Oklahoma. The commission investigated the reasonableness of contract increases from 7.5 to 8.5 cents per Mcf which the producers had filed and the commission suspended.

The eleven rate proponents in this case were organized under a unitization agreement, pursuant to Oklahoma law, by which their interests in the West Edmond field were operated by Sohio Petroleum Company. There were 133 lessees in the unit holding interests in 754 tracts. The tracts had greatly varying shares in the production of the field.

Rate Base Approach Inapplicable

The commission discussed at some length the extraordinary difficulty of applying the rate-base-rate-of-return approach in this case. Because of the companies' other extensive activities, only a small portion of their operations were being investigated. Moreover, the rate base of each company would bear no reliable relationship to the amount of gas produced.

Besides field price evidence, the producers showed that more than one-third of their wells had been abandoned and plugged because of operating costs in excess of the existing rate of 7.5 cents per Mcf. This was positive evidence that these wells were not yielding any return on investment. It was also shown that labor, exploratory, and production costs had sharply increased since the establishment of the 7.5-cent rate. Though this cost evidence was not proof in itself of the reasonableness of the rate increase, said the commission, it indicated that higher rates were needed. The field price in the area was about 10 cents, substantially above the proposed price.

This evidence, together with the fact that the contract rate was arrived at by arm's-length bargaining, was held sufficient to justify a finding that the proposed price was just and reasonable. The commission concluded that the rate base approach was not practical or conducive to effective regulation in this case and held that the rate proponents had done all that could be expected of them in showing that their proposed price was reasonable. It was made clear, however, that the commission did not disapprove the use of the rate base method in all producer cases.

Market Effect

The commission observed that the ultimate result of the application of the cost rate base method to individual producers of natural gas would be to drive low-cost gas to the intrastate markets, where it could be sold for the field price, and leave only the high-cost gas for the interstate markets. This would be a result contrary to the interests of that portion of the public dependent upon interstate sales. It was also noted that the principal guide of the commission in determining whether to suspend filings of producer rates has been a comparison of the proposed rates with field prices in the area, though field prices alone, under the City of Detroit decision (11 PUR3d 113), are not sufficient basis for determining whether a price is reasonable after it has been suspended.

Commissioner Connole, while agreeing on the difficulty of applying the rate base approach, thought that the proponents of the increase had failed to meet their burden of proof under existing law, and that dismissal of the proceeding was required. *Re Pan American Petroleum Corp. et al. Opinion No. 310, Docket No. G-8549 et al. April 4, 1958.*

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Rate Condition in Producer Certificate Unwarranted Where Proposed Price Not Proved Excessive

DESPITE objections by the staff, the Federal Power Commission approved an examiner's decision granting certificates to independent natural gas producers for sales from the Maurice field in Louisiana to United Gas Pipe Line Company at a contract price of 19.5 cents per Mcf. United obtained authority in the same proceeding to construct and operate necessary transmission facilities.

Proof for Rate Condition Lacking

The only question before the commission was whether, as contended by the staff, a rate condition should be attached to the certificates limiting the initial price to 18 cents. Under § 7(e) of the Natural Gas Act, the commission has authority to impose conditions when required by the public convenience and necessity. The commission, agreeing with the examiner, held that there was no evidence to show that the proposed rate condition was reasonable and required by the public convenience and necessity. Nor was the 19.5-cent price shown to be excessive. Other prices in the production area were higher, and there was a complete lack of evidence that 19.5 cents would result in a price increase in the area.

The commission distinguished the facts in this case from those in the Signal case (17 PUR3d 226), in which a rate condition of 10 cents was imposed in lieu of a proposed price of 12 cents. There it was shown by positive evidence that no more than 10 cents was being paid for any gas in the south central region of Oklahoma, the production area.

The commission observed that it must consider what possible adverse effect the proposed price may have on the customers of United, in addition to whether such

price would adversely affect the price paid by other purchasers of gas in the production area. It appeared, however, that a reduction of 1.5 cents per Mcf, as proposed, would change United's cost of gas by less than .0005 cents per Mcf. This would plainly result in no price increase to United's customers.

Burden of Proof

While the burden of proving all elements of a case of public convenience and necessity is on the applicant, where the issue of the attachment of a rate condition is injected into a proceeding by another party, the burden of going forward with the evidence relating to such issue is on the party who raises it, the commission stated. If an applicant were required to go forward with evidence to show that a particular rate, considered in conjunction with others, is justified, an applicant for a high initial rate would have to consider not only every other high rate in the country but the relative effect that the proposed rate, in conjunction with any one or more other rates, would have on the gas price structure as a whole. This would be an impossible burden on an applicant.

Price Condition Impracticable

In the majority of independent producer certificate cases, the commission observed, where the price for the proposed sale has been arrived at on an arm's-length basis, the imposition of a rate condition under § 7(e) of the Natural Gas Act reducing the proposed price is neither a proper nor practicable means of protecting the consumer. However, circumstances may demand the imposition of a price condition, as, for example, where

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the issuance of the certificate without the condition would result in substantially increased prices in the production area. But the primary instrument for the protection of the consumer against excessive rates is the rate provisions of the statute.

The commission has not yet resolved on any formula or standard for fixing rates of independent producers. But, in any event, the commission indicated, it is not feasible to transform an independent producer certificate proceeding into a time-consuming rate case to determine whether or not a condition should be imposed on the original price.

Field Price Data

While field price data are useful in determining the justness of rates, unsupported data alone cannot be used either in a rate case or in a certificate case. The Natural Gas Act requires that a rate condition be reasonable. A producer price previously approved in another proceeding may have little value for the purpose of certificating a proposed price in a present proceeding, since the terms and conditions of sale, among other things, might be entirely different.

The commission noted another objection to a price condition. Assuming that 19.5 cents was excessive, it would be almost impossible to find in a certificate proceeding any rational basis for designating another particular price as fair. It is not enough merely to select at random some price a few cents lower than the pro-

posed price. A "grab bag" approach will not suffice, said the commission. There must be an understandable criterion, if the condition is to be reasonable under § 7(e).

Dissenting Opinion

Commissioner Connole, dissenting, declared that the staff, though it seeks a rate condition, has no burden to establish that an applicant for a certificate has failed to meet a requirement of public convenience and necessity, or that a proposed price is too high, in the sense that if the applicant makes a prima facie case and the staff does nothing, the application must be granted.

All new producer price contracts are a proper subject of regulatory scrutiny, said the commissioner, since the potential effect of a proposed price on the entire price structure in the industry is an important consideration in a certificate application.

Commissioner Connole proposed a set of standards for producer prices. Essentially, in the absence of proof of special circumstances, he would consider each new sale as typical and average and presumptively to be made at a statistically determined typical price level in the production area. This typical price level would be enforced, if necessary, by the imposition of a price condition to the certificate. *Re Seaboard Oil Co. et al. Opinion No. 309, Docket Nos. G-11970, G-12019, G-12055, March 31, 1958.*



Treatment of Accelerated Depreciation Discussed By Kansas Commission

THE Kansas commission, in authorizing increased electric rates which would produce a return of 6 per cent on intrastate operation, discussed four meth-

ods of treating the effects of the use of accelerated depreciation.

The commission rejected the first method, which would have allowed, as a

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deductible expense, only the income taxes actually paid and would have given no consideration to the tax deferral reserve. The major item in the determination of a rate base is the original cost of plant in service, from which is deducted the accumulated depreciation. If the income tax allowed is calculated on the basis of accelerated depreciation and depreciation expense is calculated on a straight-line basis, said the commission, there is an inconsistency in the tax calculation with relation to depreciation expense allowable as well as to the depreciation provision allowable as a deduction in calculating the rate base.

However, under such a method, the allowable income tax deduction will vary from one period to another because of the current effect of having taken accelerated depreciation to the extent that the rate of return of one test year could not be appropriately compared with an earlier or later year, all other factors being equal.

Moreover, the method does not provide proper safeguards for risks assumed for future consumers. If the test year happened to have immediately followed a year or several years of normally high plant additions upon which the utility had claimed higher than normal depreciation, actual income taxes for such test year would be abnormally low. A few years later such situation might well be reversed, especially if the period of abnormally high additions were followed by a period of abnormally low additions prior to the test year.

Under such a method, the consumers of the earlier period might enjoy lower rates at the expense of consumers of the later period. Such danger would be imminently greater were income tax rates increased in the latter period or if Congress repealed or altered accelerated depreciation provisions.

Second Method

The commission rejected a method which would have allowed normalization of income taxes as required by the commission's accounting order and would have given no consideration to the tax deferral reserve. Although this method removes the objection of periodic fluctuation in the amount of the deduction allowable for income tax purposes and affords protection to the future ratepayer which the first method does not, said the commission, its adoption would in effect be saying that the stockholders of the utility are entitled to all the direct benefits that flow from the use of accelerated depreciation. The commission believed that customers of a regulated utility are entitled to share in such benefits.

Third Method

Another method, which would have allowed normalizing of income taxes as required by the accounting order and reduce the rate base by the amount of the tax deferral reserve, was also rejected. Although this method removes the objection of periodic fluctuation in the amount of the deduction allowable for income tax purposes and affords protection to the future ratepayer, the commission pointed out, it fails to recognize risks assumed by stockholders when a utility elects to use accelerated depreciation. It implies that the ratepayer is the only one entitled to the direct benefits from the use of accelerated depreciation, and that the risks should be assumed by the stockholders with little or no prospect of compensation therefor.

One alternative to this method would be to make allowances for such risk by deducting only a portion of the tax deferral reserve from the rate base. This would require a review of such risks at each time of a rate review and would call

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for a judgment on the part of the commission in the determination of the portion to be deducted. In the commission's opinion, judgment factors more properly belong in the determination of the rate of return.

If the tax deferral reserve is deducted from the rate base, said the commission, the rate base will fluctuate from year to year, so that a comparison of the return of a utility with the returns of other periods or with the returns of other similar companies would be less accurate and meaningful. The variations would not necessarily have a bearing on the investment required to render utility service, which, after all, is what a rate base should measure. The commission could see justification in the deduction if such amount represented capital contributed by utility users, but this was not the case.

Fourth Method

The commission adopted the fourth method, which allowed normalizing of income taxes as required by the accounting order and considered the aggregate of a tax deferral to be interest-free capital in arriving at an appropriate rate of return on capital. The commission believed this last method satisfactorily overcame the objections raised in discussing the first three methods.

It permits the normalization of income taxes, said the commission, it will tend to stabilize the present and future rate structure, and it is consistent with the accounting order which requires the use of the

tax deferral reserve, thus preventing any tax reduction being paid out in dividends.

The use of accelerated depreciation will produce some interest-free capital, which will reduce the overall cost of the money necessary to support the company's rate structure. The commission believed this was the principal benefit to be realized from the use of accelerated depreciation and that the consumer should be permitted to share in this benefit. The commission gave due consideration to the free capital which would be available to reduce the overall cost, in determining the rate of return.

The commission pointed out that the use of the fourth method in future rate reviews would enable it to reappraise, in the light of experience, the risks, benefits, and effects of having taken accelerated depreciation. If, through a continuation of plant expansion, a reduction in income tax rates, or by other reason, the tax deferral reserve continues to grow, the commission said, the cost of capital will be further reduced and there will be opportunity to allow greater benefits to be passed on to consumers in the rates of return granted.

On the contrary, if by recession in plant expansion, by increases in future tax rates, or by repeal or alteration by Congress of accelerated depreciation provisions, the tax deferral reserve is then found to be decreasing, the rates of return will require appropriate adjustment in light of the circumstances. *Re Empire Dist. Electric Co. Docket No. 55,302-U, February 11, 1958.*



Value of Contract for Free Water Supply Excluded from Rate Base

THE Connecticut commission allowed the Collinsville Water Company a rate increase sufficient to afford nearly

one-half the additional revenues requested. The proposed rates would result in an increase of approximately 75 per cent for

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each class of customers. The company cited high costs and capital needs for construction in justification of higher rates. The commission found that existing rates, producing only a 3 per cent rate of return on a cost rate base, were inadequate.

In 1914 the company sold its water supply facilities under an agreement whereby the company would receive free of charge and in perpetuity all the water it would require to serve its customers. In this rate proceeding, the company claimed as a part of its rate base approximately \$8,000, the assigned value of this supply contract. However, the commission ruled that since

the company had recovered its original cost through the cash sale, no earnings could be allowed on this claim.

The commission disallowed as an operating expense a claim for a salary of \$3,600 for an additional employee. This amount, added to officers' salaries of \$4,200, would increase total salaries to \$7,800. This expense item would be an undue proportion of the total operating revenues of \$18,300, the commission held. Furthermore, it was not shown when the company contemplated hiring the new employee. *Re Collinsville Water Co. Docket No. 9604, March 27, 1958.*



Unauthorized Electric Construction Ratified

THE Colorado commission ratified an electric company's construction of a line into a disputed but uninhabited territory.

The company had shown that it had mistakenly constructed the line and that it would cost several hundred dollars to correct the mistake, and had assured the commission that such a circumstance would not occur again.

The commission pointed out that it was elementary regulatory law that customers

of a utility must ultimately pay all costs of operation. If the company were required to move the line it had mistakenly constructed, then the customers would ultimately pay the cost of the moving. In view of the assurance given by the company against reoccurrence, it seemed obvious to the commission that no measurable injury could possibly result to a co-operative disputing the area. *Re Public Service Co. of Colorado, Application No. 15759-PP, Decision No. 49732, March 3, 1958.*



Business Recession Reflected in Electric Rate Case

IN authorizing an electric company to increase rates, the California commission concluded that a 6.20 per cent return was not excessive. It believed that the total increase in dollars which would be produced by the proposed rates (with tax and fuel clauses) was fully justified, except that it would not allow the tax and fuel clauses and would prescribe somewhat different rates from those proposed by the company in order to yield this increase.

The commission staff's earnings estimate for the current year was somewhat lower than the company's. This resulted from the fact that the staff's basic estimate was prepared at a later date than the applicant's and included the effect of the slowdown in the rate of business operations experienced during the last half of 1957 and its effect on anticipated 1958 operations. The company was willing to adopt the staff's basic estimate with certain reservations. It admitted that its

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estimate was too optimistic in view of the changed business outlook for 1958, which occurred after its basic estimate had been prepared. Accordingly, the staff's rate base was adopted.

Pension Contributions

The staff and the company disagreed with respect to an amount of \$35,000 representing pension contributions actually paid but disallowed by the staff on the ground that the minimum pension benefits based upon monthly salaries during the final five years of service were beneficial only to higher-paid employees. The company pointed out, however, that the minimum provision was equally applicable to lower-paid employees and that the Internal Revenue Service considered the pension plan and found that it did not discriminate in favor of the higher-paid employees. The commission concluded that the company's position was reasonable and adjusted the staff's estimates accordingly.

Fuel and Tax Adjustment Clauses

The proposed fuel and tax clauses were opposed by counsel for the United States government and the California Manufacturers Association. It was argued that the use of such clauses permits rates to be raised without an investigation and hearing to determine whether all factors required to justify a rate increase actually exist. It was claimed that their approval by the commission would constitute an abdication of its regulatory powers.

The commission observed that if it should adopt the proposed fuel clause, the company's effective rates initially would produce some one million dollars less than the base rates requested by the company and that over the year repeated and unpredictable changes could be expected.

Likewise, unpredictable changes would be expected from the tax clause. The commission said that it does not look with favor on automatic cost adjustment clauses.

The commission could not find sufficient evidence of competition in the service area to warrant competitive fuel clauses in any of the schedules. It said that fuel clauses may have their proper place in certain schedules where it is essential that competitive conditions with regard to customers' local generation be met. But the present and proposed fuel clauses were not for such a purpose. They were based on the company's costs rather than customers' cost. Inclusion of such clauses in the rate schedules was disallowed.

Rate Zoning

The company's existing domestic service rates were segregated into seven zones and its general service rates into five zones. It proposed to consolidate certain domestic zones and reduce the number to five.

The present zoning plan was by areas rather than by cities and built-up communities, except for the city of San Bernardino, where it competes for business with Southern California Edison Company.

The commission held that the fact that approximately one-half of the customers reside in built-up or urban areas that have substantially higher customer density than in rural areas served by the company should be recognized in the rate structure. It required the company to make a start on revising its zoning system to reflect the commission's general policy of rate zoning reflecting size and density of built-up urban, suburban, and rural areas. *Re California Electric Power Co. Decision No. 56501, Application No. 39032 Amended, April 8, 1958.*

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Inflationary Costs Boost Telephone Rates

GENERAL TELEPHONE COMPANY OF THE NORTHWEST, with net earnings eroded by inflation since its last rate increase in 1952, made out a case for higher rates in a proceeding before the Idaho commission. Additional revenues were authorized sufficient to produce a return of $6\frac{3}{4}$ to 7 per cent on the basis of a depreciated original cost rate base. A utility must have adequate revenues to meet operating expenses, including depreciation, taxes, fixed charges, and dividends, and also retain some earnings, the commission commented.

The company was unable to persuade the commission that it should be allowed a $7\frac{1}{2}$ per cent rate of return. Testimony was submitted tending to show an overall cost of capital of 7.34 per cent and, particularly, a cost of 12.48 per cent for common stock. The latter figure was de-

veloped by using a 9 per cent dividend with a $66\frac{2}{3}$ per cent pay-out ratio. On the other hand, a staff witness used a 7.5 per cent dividend rate with a $66\frac{2}{3}$ per cent pay-out ratio and developed a cost rate of 10.38 per cent for common stock. This reduced the overall cost-of-capital rate to 6.58 per cent.

The Idaho commission concluded that a rate of return not exceeding 7 per cent would be adequate.

The rate base proposed by the company was adopted. Noting that the company was experiencing inflationary costs of operation and would continue to add substantial plant investment, the commission decided that end-of-period figures, as submitted, should be used in this case. *Re General Teleph. Co. of the Northwest, Case No. U-1002-4, Order No. 4684, March 27, 1958.*



Public Utility Status of Water System in Residential Development

UPON complaints by water users, the Missouri commission investigated a small water system that was being operated without certificate authority and ruled that it was a public utility. A certificate was issued to the operators.

The original owners of a new residential addition had installed the system, serving new houses as they were built and imposing a flat charge. Eventually, as houses in other areas were connected to the system, the water pressure diminished to a point where service was inadequate. The owners, who in the meantime had sold their holdings in the development, denied responsibility to provide adequate service. An attempt was made to show that the

charge for service was merely a charge for membership in a swimming pool operated by the water system owners. The commission held that responsibility as a public utility could not be avoided by following this procedure.

By constructing water mains, permitting connections, and making a charge for water, the operators showed conclusively that they were in the business of supplying water to the public, said the commission. Rates were ordered to be filed and the commission found that the operators should make service improvements. *Residents of Airwood and Belcrest Additions v. Moon et al. Case No. 13,784, March 24, 1958, April 9, 1958.*



Supplier Increase Passed on to Gas Customers

THE Wyoming commission granted a company's application to increase natural gas rates upon a showing that neither the gas department nor the company as a whole could safely or equitably absorb any portion of the increased supplier cost and continue to earn a reasonable return upon the net investment rate base. Because the rate adjustment was in the nature of a "pass on," the commission

directed that it be made applicable to all customers, including special contract customers. In its order, the commission directed the company to allocate any supplier refund, after final determination of the supplier's rate case before the Federal Power Commission, proportionately. *Re Cheyenne Light, Fuel & Power Co. Docket No. 9248, Sub 4, February 21, 1958.*



Working Capital Allowance Included in Telephone Company Net Investment Rate Base

THE Utah commission, for the first time in telephone cases, included in the net investment rate base of a company, a cash working capital allowance equivalent to twenty days' operating expenses. In previous cases, the commission's exclusion of such an allowance had been predicated primarily upon three considerations: (a) the fact that the company's balance sheets always showed current liabilities in excess of current assets, which resulted in a negative working capital position; (b) the practice of the company of rendering bills in advance for a substantial part of the service; and (c) the availability to the company of funds represented by current accruals for taxes which were not payable for several months after the accrual.

However, in the instant case, the commission found that an average collection lag of fifteen days existed. Moreover, the pay-as-you-go system of corporation income tax payments now a part of the federal tax laws would have the effect of reducing the period of time a utility would have accrual funds available. It seemed clear to the commission that tax accruals in the future could not be relied upon to

provide working funds to the same extent as in the past.

Plant under Construction

The commission rejected the company's plea for inclusion of telephone plant under construction. Noting considerable disagreement among regulatory commissions as to the proper treatment to be accorded plant under construction in the determination of a rate base, the commission commented that published cases indicated that a majority of the commissions have excluded this element of property in those instances where the utility follows the practice of capitalizing interest during construction. When this is done, the amount of interest capitalized during the test period is not treated as part of the utility operating income for the period.

The exclusion of plant under construction from the rate base usually is grounded on the premise that the investors are indirectly compensated for the provision of funds during the construction period through the process of capitalizing interest.

The commission also took cognizance of rulings that plant under construction

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should not be a part of the rate base unless some provision is made for inclusion of additional revenue or the exclusion of expenses saved as a result of this additional plant, particularly where it appears that interest is being capitalized.

The commission's general policy had been to exclude plant under construction from the rate base in cases involving other utilities. After consideration of all aspects, the commission concluded that it should not depart from established practice.

Test Period

The commission's procedure in past rate cases had been to adopt, as a test period or pattern year, the actual operating results for the most recent twelve months available at the time of inquiry. The use of a past test period as the basic guide in fixing rates for the future usually results in equitable treatment for the customers and investors if the general price level remains fairly stable, said the commission. However, in a period of rising prices and a continuous plant expansion program, the economics of the telephone industry are such that the rate of return allowed may start to diminish as soon as the new level of rates has been established.

On the other hand, if the situation were reversed and the general price level were declining, the rate of return might increase with the passage of time.

It appeared to the commission that the basing of revenue requirements for the future on a past test period in prior cases had been one of the reasons for the failure of the company to earn the return which the commission had thought to be proper. Accordingly, the commission based its conclusions to a large extent upon the forecasts of revenues, expenses, earnings, and investment for the year in which the rate increase was sought to be imposed.

Rate of Return

The commission found a rate of return in the vicinity of 6.25 per cent on the net investment rate base would be fair and reasonable. Noting a decline in expenses per telephone since the last proceeding, the commission said that the figures indicated that management had kept expenses under careful control, and that efficient management should be recognized in allowing rates which would permit the subsidiary to make its fair share of parent company earnings. *Re Mountain States Teleph. & Teleg. Co. Case No. 4220, January 31, 1958.*

Other Recent Rulings

Optional Interruptible Rate. Against claims of unreasonableness and discrimination, the Illinois commission upheld an optional interruptible gas rate giving users priority over service furnished under an existing lower interruptible rate. *Western Brick Co. et al. v. Illinois Power Co. No. 43550, March 19, 1958.*

Telephone Company Return. A return of 6.5 per cent on a telephone company's

net book value rate base was considered reasonable by the Wisconsin commission. *Re Eastern Alto Teleph. Co. 2-U-4924, February 17, 1958.*

Passenger Service Discontinuance. The New York commission authorized the New York Central Railroad to discontinue passenger service on its Putnam division where, although present users would to some extent be inconvenienced,

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two other nearby divisions were available for their use, and the discontinuance would effect substantial savings which would benefit such customers by minimizing the amount of further fare increases. *Re New York C. R. Co. Case 18033, March 8, 1958.*

Transit Rates Increased. A Connecticut transit company, showing increasing annual deficits as a result of declining patronage and rising costs, was authorized by the Connecticut commission to increase its adult cash fare from 15 cents to 20 cents, affording a contemplated operating ratio of 95.6 per cent. *Re Connecticut R. & Lighting Co. Docket No. 9571, March 25, 1958.*

Gas Property Sale. The Missouri commission approved a contract of sale between two gas companies, under which one of the companies was to acquire the assets of the other, where the record showed that the sale was not detrimental to the public interest and that integration of the two systems would ultimately result in operating economies and be beneficial to the residents of the area involved. *Re Missouri Power & Light Co. et al. Case No. 13,882, March 26, 1958.*

Train Discontinuance. The Wisconsin commission authorized a railroad to discontinue operation of passenger trains between two cities without substituting bus service therefor where annual out-of-pocket loss was so great that it clearly outweighed the public need for continued service. *Re Chicago, M. St. P. & P. R. Co. 2-R-3132, CC-165, February 28, 1958.*

Certificate for Specialized Equipment.

Certificates authorizing statewide service should not be granted, held the Colorado commission, on improved and specialized equipment alone, especially when such equipment serves only a limited number of customers, since the grant of such a certificate would tend to destroy the efficiency of the all-purpose carrier who operates from bases all over the state. *Re Verl Harvey, Inc. Application No. 16114, Decision No. 49745, March 4, 1958.*


Surcharge for Outside Service. The Wisconsin commission authorized a municipal water plant to charge customers located outside its district a surcharge of 30 per cent in order to make such customers pay an amount equivalent to the cost of service where customers inside the district were subsidizing the operation by payment of taxes. *Re Fox River Heights Sanitary Dist. CA-3554, February 28, 1958.*

Retroactive Depreciation. While the Indiana commission permitted a telephone company to revise depreciation rates for certain properties destined for early retirement, it refused to allow, for rate-making purposes, additional charges to income for retroactive depreciation; any deficit in depreciation reserve occurring at the time of retirement should be amortized to expense for extraordinary retirements. *Re Jasper Teleph. Corp. No. 27298, January 10, 1958.*

Attrition Factor in Return. The California commission considered a return of 6.25 per cent, which included an attrition factor of .2 per cent, reasonable for a water company. *Re Lakewood Water & Power Co. Decision No. 56418, Application No. 37844, March 25, 1958.*



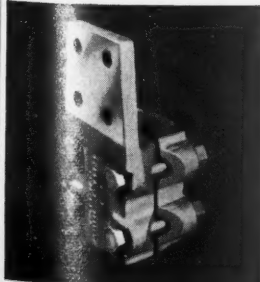
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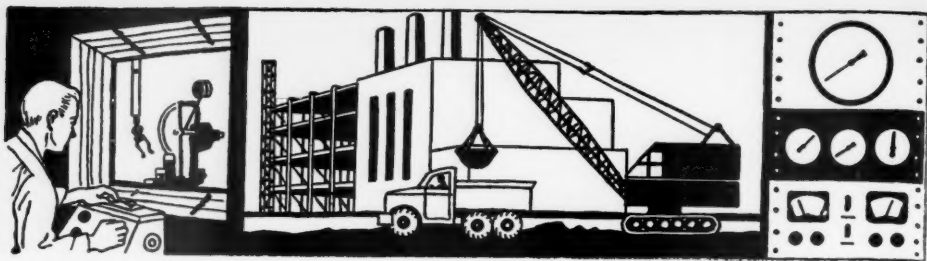
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Industrial Progress

West Penn Power Plans \$30,000,000 Construction Program

West Penn Power Company plans a \$30,000,000 expansion and construction program this year that will provide increased and improved electric service facilities in nearly every part of its service area.

The first 165,000-kilowatt generating unit at Armstrong power station, near Kittanning, has been completed and work on a second unit of similar size has already started with a completion date of next year.

Other projects include new and expanded substations, reinforced and additional lines to serve a number of communities, better facilities for customer service and maintenance operations.

Prefab All-Aluminum Sub- Station Erected for Consumers Power

The world's first prefabricated, all-aluminum electrical substation was erected recently for Consumers Power Company at Alma, Mich. It took just six hours to raise and position the various sections after they were ground assembled.

Weighing only one-third as much as galvanized steel, the prefabricated trusses and structural parts were handled easily by the construction crew. The new substation design, known as Alrectic, was developed in aluminum by Harvey Handley-Brown Company of Jackson, Mich., with design and engineering assistance from Consumers Power and Kaiser Aluminum & Chemical Sales, Inc.

Fifty officials from several mid-western and eastern utility companies witnessed the substation erection in addition to representatives from the firms involved.

G-E Booklet Describes Combustion Gas Turbines

Combustion gas turbines in a wide range of kilowatt ratings for diverse applications in the electric utility industry are described in General Electric Company's new publication designated GED-3603.

Adaptability for base load, peak load, end-of-line and hydro-standby applications is outlined for these modern prime movers which range from 4750 to 21800 kilowatts in capacity.

The bulletin lists such unique features as smallness in size and weight, simple startup procedures, inexpensive building requirements, low installation costs, automatic starting and remote operation possibilities, low maintenance and operating cost and minimum cooling requirements.

Cross sections, schematic drawings, cut-aways and typical installation photos indicate versatility of the gas turbine. Five General Electric gas turbines are illustrated together with cycle diagrams of possible applications in the electric utility industry such as combined steam-gas supercharged boiler plants to increase base load economy.

Copies of the booklet can be obtained by writing to the General Electric Company, Schenectady 5, New York.

New Booklet on Chemical Brush Control

"Before Trouble Starts" is the title of a new publication issued by the Dow Chemical Company. The booklet discusses the use of modern herbicide chemicals as the most efficient and economical method of controlling vegetation along right of ways, in substations and storage yards. It discusses various chemicals adapted to utilities' needs and application programs tailored especially to meet electrical com-

pany problems.

"Before Trouble Starts" is available from Agricultural Chemical Sales, The Dow Chemical Company, Midland Michigan, or from any sales office.

More Expansion Planned by Chesapeake & Potomac Tel. of Md.

To expand and improve telephone service in the state, the board of directors of the Chesapeake and Potomac Telephone Company of Maryland recently approved expenditure of \$2,088,000, according to an announcement by W. Griffin Morris, vice president.

Philadelphia Electric Installs Nation's Brightest Whiteway

Philadelphia Electric Company recently completed installation of what it proudly calls the nation's brightest whiteway.

The mercury luminaires are given a five-block area of 69th street Upper Darby, Pa., the highest average initial footcandle level (12.6) and the highest average maintained footcandle level (7.6) of any street in the nation. In addition, it is the country's first major retail business street to employ 1,000-watt clear mercury lamps for street lighting.

A total of 66 General Electric Footcandle units have been installed along 69th street to provide what merchants are already calling "a rejuvenation of the entire area." The luminaires are clear mercury lamps and are mounted on eight-foot bracket arms. They are spaced oppositely at 90-foot intervals and situated 32 feet above the pavement. Prior to the installation of the new street lights, this section of 69th street was illuminated by 1927 vintage ornamental post-top luminaires.

According to R. M. Hoot, general

supervisor of municipal sales for Philadelphia Electric Company, "These new units are 11 times brighter than old luminaires which provided only average maintained footcandle. This is by far the nation's brightest street lighting installation and we are justifiably proud of it."

Philadelphia Electric Company installs, owns, operates, and maintains the street lighting system, charging Darby Township for this service in accordance with published tariff rates.

AHLI Issues Booklets on Medallion Homes, Institute Membership

Two new booklets, "How To Cash In On LBE's Medallion Home Program" and "Here Are The Facts About AHLI . . . And Your Profits" are announced recently by the American Home Lighting Institute. In "How To Cash In On LBE's Medallion Home Program," the institute explains that a Medallion Home is one which meets specific requirements for good lighting, wiring, and electrical appliances established by the local electric utility. The campaign is promoted nationally by Live Better Electrically.

For local lighting requirements, utilities are being urged by LBE to be the Light for Living Standards established by the American Home Lighting Institute.

"This fact gives distributors and manufacturers a chance to sell more fixtures on the local level," stated Ted Fox, managing director of American Home Lighting Institute. "LBE expects 100,000 Medallion Homes to be built in 1958. Each will have about double the 11 fixtures found in the average home," he further stated.

The booklet goes on to tell how distributors and manufacturers can work with utilities and home builders promoting the Medallion Home locally.

In the AHLI membership booklet, "Here Are The Facts About AHLI . . . And Your Profits," the Medallion Home program and the Light for Living Standards are cited as two of the institute's accomplishments in the past three years. Also described are the institute's achievements in helping the lighting industry sales 44 per cent since 1954.

Copies of both booklets are available no charge from the American Home Lighting Institute, 360 N. Michigan Ave., Chicago 1, Ill.

Arkansas Louisiana Gas Wins Chamber of Commerce Award

First place award in the United States Chamber of Commerce annual Economic Understanding competition was conferred upon Arkansas Louisiana Gas Company recently at the National Chamber's 46th annual meeting in Washington, D. C. J. R. Merryman, assistant personnel manager, received the ALG award in behalf of W. R. Stephens, president and chairman of the board.

Arkansas Louisiana Gas Company is among more than 100 business firms which competed in the 1957 Economic Understanding awards program. Contest entries are divided into five groups, based on number of employees, and ALG was the national winner in its category.

The program is designed to recognize outstanding achievement for successful activities in developing a better understanding of the operation of business and the economic system. Basis of judging is the most effective use of employee communication media.

Preparation of the ALG entry was made by the personnel department at Shreveport, explaining the company's use of employee publications, employee letters, bulletin boards, annual reports and employee meetings to develop a better understanding of business among the employees.

Arkansas Louisiana Gas Company has been the recipient of three other awards this year. These include the Certificate of Excellent Management for 1957, awarded by the American Institute of Management on the basis of a systematic, ten-point comparative study of the best managements in the United States and Canada.

The Department of Defense Reserve Award was presented in March citing the company for outstanding cooperation with reservists and reserve activities.

The United Shareholders of America has recognized the company's efforts to maintain and promote good management-shareholder relations by awarding ALG the 1957-58 United Shareholders "Good Corporate Citizenship" Certificate of Merit.

(Continued on page 22)



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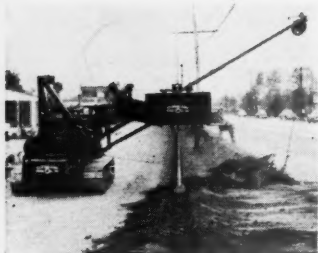


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INDUSTRIAL PROGRESS (Continued)

Requirements for Gas-Fired Air Conditioners Proposed

Proposed American Standard approval requirements for gas-fired conditioners of the absorption type were recently distributed by the A. G. A. Laboratories to gas utilities, equipment manufacturers and others for review and comment.

In view of the increasing emphasis of the industry on gas air conditioning, a special working group of the ASA Sectional Committee, Project Z21, A. G. A. Approval Requirements Committee, prepared suggested provisional standards for the gas-fired absorption type cooling air conditioners. The AGA Approval Requirements Committee at its March 1958 meeting, reviewed the suggestions of the working group and authorized the publication of the proposed standard for industry review and comment.

Comments received, however, are being reviewed and alterations made to the proposed text where necessary. A newly formed subcommittee of the Approval Requirements Committee, before the proposed standard is finally adopted by the parent group, will submit to the American Standards Association, Inc., for approval as an American Standard.

The proposed standard in its present form applies to gas-fired absorption cooling air conditioners for door installation, which are designed to supply cooled air or chilled liquid to spaces remote from or adjacent to the appliance location. Expansion coverage of other types can be expected as new systems are developed and marketed.

The proposed standard as prepared is similar to the standards for heating units with modifications to cover various features peculiar to conditioning units. It has been broad in coverage so as not to hinder possible future developments.

Copies of the proposed standard for review and comment may be obtained from the A. G. A. Laboratories, Inc., East 62nd Street, Cleveland 3, Ohio.

Niagara Mohawk Power Continues \$300 Million 3-Year Expansion Plan

Niagara Mohawk Power Corporation "is going forward on schedule with its three-year, \$300 million expansion program," Earle J. Macho, president, announced at the annual meeting.

"We are convinced that the future prospects of the region we serve

future prospects of the company excellent," he said. "This company continues for the rest of the year experience a decline in industrial sales, but we expect the electrical sales to residential, commercial farm customers will hold up well that we will continue to have interest in the use of natural gas."

I-T-E Makes Own New Line Of Dry-type Transformers For Its Unit Substations

The manufacture of its own sealed dry-type transformers now enables I-T-E Circuit Breaker Company, Philadelphia, to provide all major components—switchgear and transformers—for its entire line of unit substations.

Formerly, only liquid-filled and sealed dry-type transformers were available by I-T-E. The sealed dry-types have been purchased from outside suppliers.

According to a company announcement, the new transformers incorporate advanced design features, such as copper secondaries and a unique design for clamping coils to core

assemblies, to produce a rugged, long-life unit.

Complete information and application data on I-T-E unit substations may be obtained by inquiry to Switchgear Division, I-T-E Circuit Breaker Company, 19th and Hamilton streets, Philadelphia 30.

Pacific Northwest Electric Utilities Plan \$325,000,000 Construction

Private power companies of the Pacific Northwest will place a record 1,144,000 kilowatts of new generating capacity in service this year, it was reported recently by President Paul B. McKee of Pacific Power & Light Company. Speaking to engineers and utility operating personnel attending the annual spring meeting of the Northwest Electric Light and Power Association. Mr. McKee stated that an "era of cooperation among power distributors has achieved the greatest hydroelectric program ever undertaken by any region in the United States. The combined efforts of all agencies and the eight power companies of the Northwest power pool are developing an all-time record

amount of new power generating capacity, an amount exceeding 8,000,000 kilowatts, at 33 projects."

Mr. McKee said there are 19 other potential projects in the planning stage that would provide another 6,500,000 kilowatts of generating capability. "This power supply program has been carefully planned and scheduled every step—every month of the last five years—to achieve for our homes, farms and factories the assurance of an ample power supply at the lowest possible cost," Mr. McKee said.

Mr. McKee reported that the eight companies are providing jobs for 13,000 men on construction payrolls at 16 power projects that when completed will have 2,488,000 kilowatts of generating capacity for future regional growth. He said the record-breaking 1958 construction budgets of the companies call for expenditures totaling \$325,000,000.

Electro-Motive Appointment

Promotion of Frederick W. Walker, Jr., Chicago regional manager, to the post of assistant general sales
(Continued on page 24)

We
are pleased to announce that
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has adopted a new corporate name

American Electric Power Company, INC.

For many years the business of American Gas and Electric System has been exclusively electric. The new name has been adopted to identify more accurately our business and our service.

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manager in charge of electric utility sales for Electro-Motive Division of General Motors is announced by Paul R. Turner, director of sales for Electro-Motive.

At the same time, Mr. Turner announced the appointment of James B. Swindell, former district sales manager in the Chicago region, as Chicago regional manager succeeding Mr. Walker.

"In his new capacity, Mr. Walker will be responsible for domestic sales of Electro-Motive's line of transportable electric generating equipment designed especially for economic handling of peak loads on the nation's electric utility systems and for furnishing supplementary power for central stations in other low load factor situations," Mr. Turner said.

New Oil-to-air Unit Cooler For Forced-oil-cooled Transformers

A new forced-oil-to-air unit cooler will be standard equipment on new power transformers manufactured by Westinghouse Electric Corporation.

Advantages of the new unit cooler (Type A) include: easier field assembly, complete interchangeability, and less auxiliary power is required per kilowatt of loss than in previous coolers.

Field assembly is simplified by use of a Dresser coupling in the piping system. Also, components are lighter to handle—only 850 pounds versus 4,000 for the older 9-fan cooler.

The new coolers are completely interchangeable, permitting use of any cooler on any given rating of forced-oil-cooled transformer.

For further information, write Westinghouse Electric Corporation, P. O. Box 2099, Pittsburgh 30, Pa.

Gas Industry Has \$2 Billion Expansion Program

THE natural gas industry plans to go ahead with a record breaking \$2 bil-

lion expansion program this year according to a survey by Ford, Bacon & Davis, engineers and consultants.

Over \$1 billion will be spent for extension and development of new pipelines while distribution companies have budgeted approximately \$500,000,000 to handle new customers. Production expenditures are estimated in excess of \$150 million; storage facilities at \$75 million and general expenditures at \$60 million.

The gas industry is expected to add a million new customers to its lines this year, with this rate of increase continuing for the next 10 years, the study said.

Electric Home Heating Offers Coal Industry Large Potential Market

THE electric utility industry will be a potential market for an additional 375 million tons of coal per year with the acceptance of electric heating in 50 million homes, R. G. MacDonald, vice president of marketing of West Penn Power Company, predicted recently.

Speaking at the Techno-Sales Conference of Bituminous Coal Research, Inc., the national research association for bituminous coal, Mr. MacDonald said that he expects a million homes to be heated by "coal by wire" by 1960, and 40 per cent of all new homes built to be heated electrically by 1970.

"Coal by wire" for house heating is actually on its way, he said, as by the end of 1957, 380,000 American homes were heated by electricity. A full season's heating by "coal by wire" of all these homes would have required the burning of close to three million tons of coal.

Electric-home heating will also permit development of new areas for home sites which now cannot be considered because of excessive cost of utilities other than electricity, he said.

Mr. MacDonald further said, that "with all the advantages of electric heating—better performance, cleanliness, convenience, automatic features, improved safety, and low maintenance and heating system replacement costs—'coal by wire' for home heating furnishes the opportunity for the coal industry to regain a market that has largely been lost and the opportunity for the electric utility industry to obtain a market it never had."

Mr. MacDonald cited the fact that the electric utility and coal industries will conduct a joint research program and called upon both industries to join forces in an all-out promotion of "coal by wire."

A-C Bulletin On New Large Outdoor Oil Circuit Breaker

THREE integrated constructive features that provide dependable protection, long life and low maintenance described in a new large outdoor circuit breaker bulletin released Allis-Chalmers.

These features include the "Pneumatic" operator, mechanically free mechanism and high speed interrupting performance.

Breakers described in the bulletin are available in ratings from 69 through 345 kv, 1500 mva through 25,000 mva.

Copies of "Large Outdoor Oil Circuit Breakers," 71B6022D, are available on request from Allis-Chalmers, Milwaukee 1, Wisconsin.

Gulton Subsidiary Enters Computer Field

GULTON Industries, Inc., has entered the computer field, according to an announcement by Dr. Leslie Gulton, president.

Dr. Gulton announced the establishment of a new Digital Devices Department that will apply semi-conductor techniques to data acquisition and reduction in analog and digital systems. The new department has been assigned to the CG Electronics Corp., Albuquerque, N. M., a wholly-owned subsidiary of Gulton Industries, Inc.

According to Dr. Gulton, the first phase of activities for the new department includes the design and manufacture of transistorized instrumentation for commercial and experimental use. The second phase concerns development contracts on digital systems for specific applications. The third phase of the program includes the development of computer instrumentation for laboratory, factory or field use.

Harry B. Barling, who has been named manager of the new department, was formerly associated with the Sandia Corp., and Bell Telephone Laboratories.

Specific activities of the new department include production of proprietary items to be sold for experimental uses such as completely transistorized module cards for low-level switching and digital work; development of components, such as electronic multipliers, analog to digital converters, magnetic tape and circuitry controls, and the development and production of a commercial line of portable, battery-operated digital instruments.

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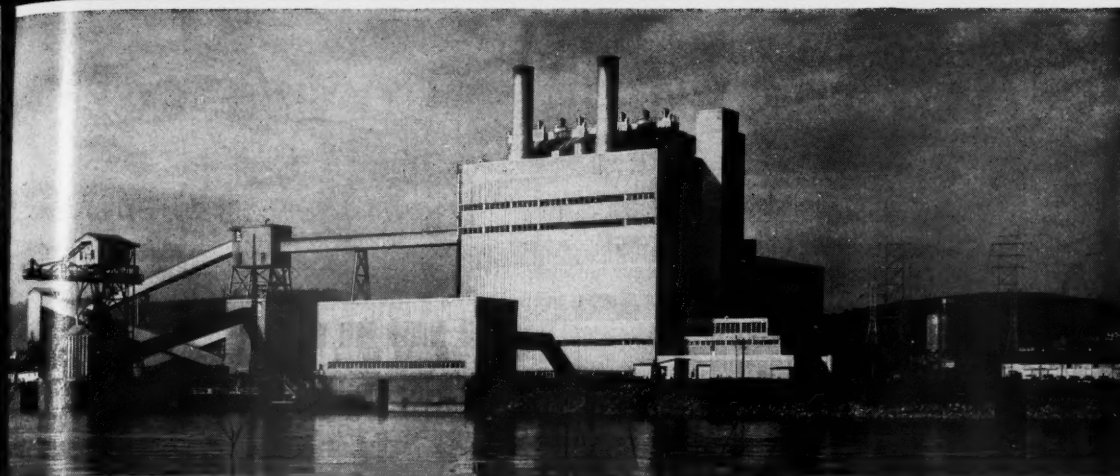
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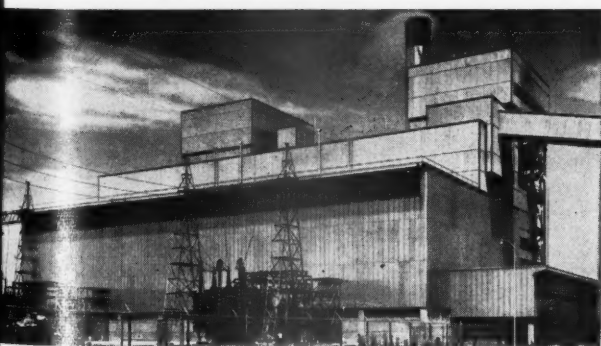
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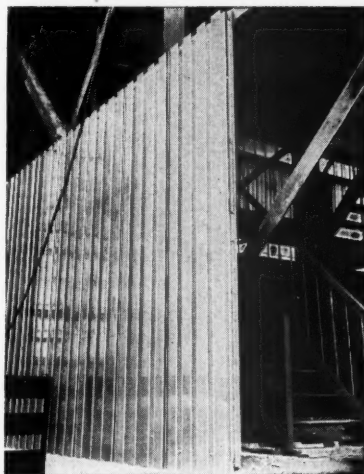


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Q-Panel walls grace the new Elrama Power Plant (above) near Pittsburgh. It was designed by Duquesne Light Company's Engineering and Construction Department. The Dravo Corporation was General Contractor.



Q-Panel walls (above) go up quickly in any weather because they are dry and hung in place, not piled up.

More than 32,000 sq. ft. of Q-Panels were used to enclose the impressive Hawthorn Steam Electric Station (left) of the Kansas City, Missouri, Power and Light Company. Ebasco Services, Inc., designed and built the plant.



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The satisfactory solution of the most expensive and difficult problem of Commission Regulation—The Rate Case—depends very largely upon how well and how thoroughly the details of *preparation* have been given attention. "Preparing for the Utility Rate Case" is a compilation of experiences taken from the records of actual rate cases. It has required two years of research, study and analysis, conducted by Francis X. Welch, Editor of PUBLIC UTILITIES FORTNIGHTLY, with the aid and cooperation of selected experts, to complete this treatise.

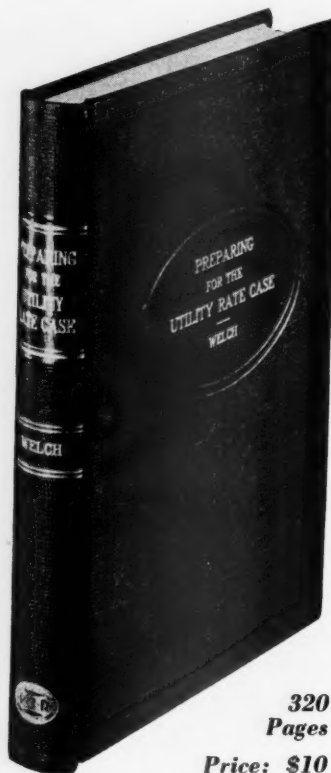
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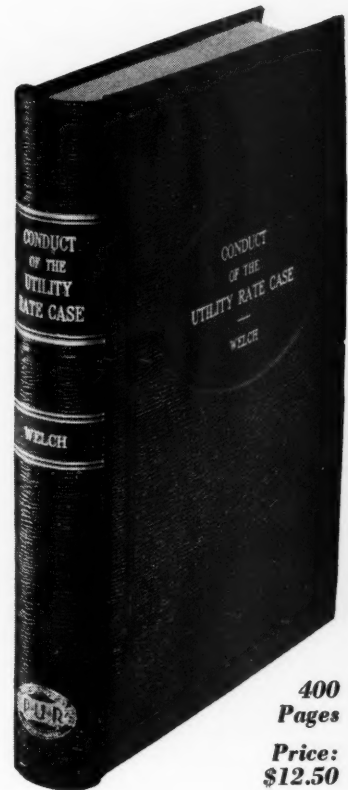
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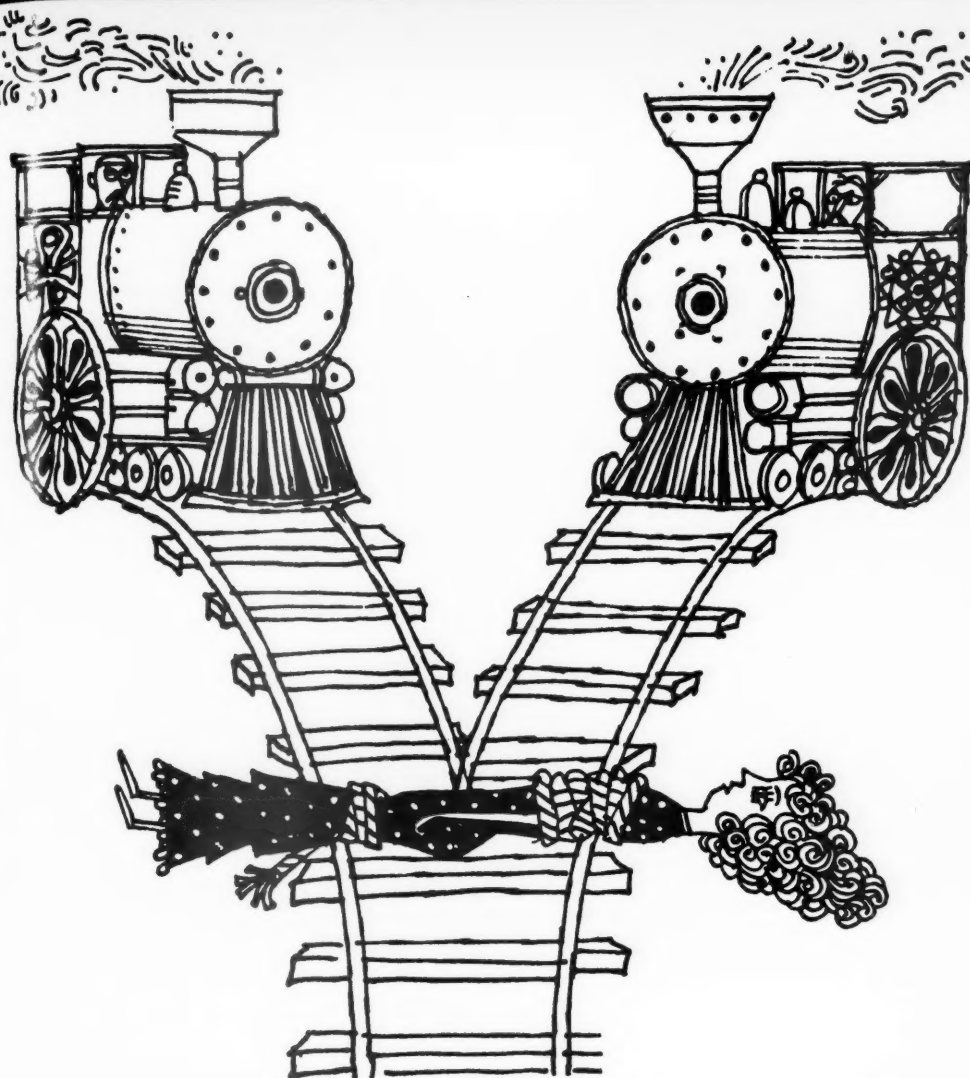
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Interview with General Electric's

WILBUR D. MARSH,

Application Engineer—

Why use gas turbines for peaking?

Q. Mr. Marsh, electric utilities have studied peak load generation in the past only to conclude, time and again, that peaking units were not economically justifiable. Have new gas turbine developments renewed interest in this subject?

A. Yes, but before looking at these, let's review the background. Electric utilities are discovering that conditions affecting the basic economics of peak load generation are changing. Look at it this way: a peak load unit must save enough in investment cost to more than offset its low efficiency. This effect—call it "production cost penalty"—is less for a peaking unit installed on a system *now* than it would have been in the past.

Q. How do you explain this change?

A. Despite its low efficiency, a peak load unit cannot have a very large effect on over-all system fuel consumption because it only operates a few hours each year. Deferring a new, efficient base load unit, however, has a much larger effect. Twenty years ago this effect was considerable because rapid progress made the steam cycle more efficient. Each new unit improved system average efficiency to a marked degree.

Q. I see. You couldn't afford to buy a peaking unit then because the best available steam turbine was so much better than your system as a whole.

A. That's right. But today many utility systems are relatively saturated with steam turbines nearly as efficient as latest units. Why? Because of rapid load growth and the fact that steam cycle efficiency gains are now much smaller and more difficult to achieve. Net result: the production cost penalty of deferring a base load unit (adding a peak load unit) is reduced considerably.

Q. What about the investment cost picture . . . is that changing?

A. Yes, in a sense it is. Utilities, consultants and suppliers like General Electric have always worked to keep station investment costs as low as possible. But in peak load generation it's permissible to sacrifice efficiency to get low investment cost, and this opens up new possibilities. For example, pumped storage hydro has received considerable atten-

tion recently. And, simpler forms of gas turbines have a real future in peak load applications.

Q. Which of these approaches is best for peak loads?

A. There is no pat answer. Each utility must consider its own special situation. Obviously, pumped storage hydro requires favorable terrain to be economical in first cost. As for gas turbine stations: I'd say that they promise much larger initial cost reductions but with correspondingly lower efficiency. This makes them most suitable for peak loads of short duration, and they might be combined with steam or pumped hydro in a kind of optimized peak load generating system.

Q. Aren't gas turbine sizes too small for utilities installing 150 or 200 megawatt units?

A. No. The basic simplicity of small gas turbines makes them low in first cost and also helps keep operating and maintenance costs *per kw* comparable to large size steam units. Also, the feasibility of unattended, remotely controlled stations makes several gas turbines no more of an operating problem than one large steam unit.

Q. Since gas turbines can't burn coal aren't they limited to natural gas areas?

A. Just as we sacrifice efficiency for low investment, we can also forego the ability to use low cost fuels. Peak load machines operate for very short periods, so in coal burning areas it's usually economical to use higher-cost distillate oils. Even if coal-burning gas turbines were available now it would be difficult to justify the added cost of coal handling equipment for peak load application.

Q. How about reliability? Are electric utilities inclined to invest in such a new prime mover?

A. First, let me say that utilities have never hesitated to try new equipment or new ideas if their studies show that they lead to reduced cost or better service. Now the gas turbine isn't new in the sense that it is untried. Over 135 General Electric units have chalked up 2¼ million hours of service since 1949 in a variety of applications.



Q. You've mentioned "production cost penalty" and investment cost savings which tends to offset it. Are there other cost factors, favorable or unfavorable?

A. No unfavorable ones in the peak load application. But added savings may exist in specific cases. For example, unattended stations can free skilled manpower for other important assignments. Placing gas turbines at load centers may reduce transmission investment . . . and losses. Gas turbines are more flexible as to location because they require little or no cooling water. The ability of gas turbines to start and run for 3 or 4 hours, and shut down means higher average capacity factor on other generating units. This has a beneficial effect on over-all system economy and maintenance costs.

Q. It sounds like many utilities can profitably explore the possibilities of gas turbines for peaking. How can they get more detailed information?

A. General Electric has experienced competent engineering people who have worked on all types of peaking applications. These specialists can help a customer . . . or his engineering consultants work out the economic and technical aspects of a particular system addition.

For further information, contact your nearest G-E Apparatus Sales Office, write for GER-1392 "Application of Gas Turbines for Peak Load." General Electric Co., Section 301-3, Schenectady 5, N. Y.

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